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**MANUAL FOR THE MANAGEMENT OF
SMALL FISHERY ENTERPRISES**

by

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HOW TO USE THIS MANUAL

This manual has been written for those fishermen, fish processors and fish traders who want to improve their businesses and for individuals who wish to develop interests in the fishing sector. Small businesses, from a one-man concern to, for example, an association, co-operative or company will find it useful. It is assumed that, to date, only very simple written records and accounts are kept by the business, if any at all. Anyone with a fair knowledge of English and able to do simple sums will be able to use this manual.

The contents represent ideas and activities which have been found to be important in the development of small businesses. The descriptions and examples given are not, however, necessarily appropriate for your part of the world or your type of industry. You must, therefore, apply the ideas presented here to your own particular situation. The examples do, however, represent conditions in tropical developing countries. Your fisheries officer, bank representative or local teacher can use this manual as a basis for instruction, taking the chapter headings and subtitles to structure the lessons. Such a person would then be able to draw on examples relevant to the circumstances in your own area.

The manual is divided into three sections:

1. Case Study
2. Setting up a fish business
3. Operating a fish business

The first section is a make-believe situation which describes many of the characteristics of the small scale fisheries industry/business in developing countries. The use of an island situation as an illustration enables the business to be seen on a small and isolated basis, while at the same time maintaining realism. It does not mean that the conditions described only apply to island fisheries; they also apply to inland and mainland fisheries.

The second section deals with the thinking and planning that goes into organising and establishing a business. It emphasises the need to clearly establish why you want to start or expand a business and what you and others expect to get out of it. It shows how to determine if an idea could be turned into a commercial venture, or if it is likely to prove unprofitable from the beginning, and how to demonstrate this clearly to an individual or organisation from whom you would like to borrow money, or obtain other forms of assistance.

The third section deals with the day to day considerations of operating a fish business, including the management of fishing, fish handling, work place, workers and money.

How to use this manual

Throughout, various points are emphasised by differences in presentation, with changes in typeface, writing in bold or the boxing of figures. This will assist the reader, you, in understanding the text. Examples are given wherever appropriate, using the situation in our make-believe island industry as an illustration. Difficult terms or terms which may be new to you, are defined in a "glossary" to be found at the back of the book and this will prove a useful reference at the stage when you are putting the lessons learnt in working through this manual, into practical use. An index is also provided which allows for detailed cross-referencing; references to other parts of the text are indicated in brackets where appropriate. Some illustrations are also given to make a point easier to understand, or to make reading the book easier.

1. CASE STUDY

1.1 INTRODUCTION

To tie this manual down to reality and the problems facing small fishing enterprises, we have decided to make up, as an example, a whole fishing industry, based on a small island community somewhere in the tropics. On this island are to be found all the different types of enterprise that one might come across, ranging from canoe fishermen to commercial small boat fleets, from market traders to fish fryers, from ship's chandlers to engine mechanics.

Throughout this manual, examples are based on the fictional island of Arcadia, with a number of her businesses selected to illustrate the spread of different organisational types that one might find within the small-scale sector of any fishery industry. These businesses can be summarised as:

- * a canoe fisherman; subsistence fisherman
- * a dinghy fisherman; employer, sole trader
- * an integrated catching/sales family business; employer, loose association
- * a fishermen's co-operative; registered co-operative
- * a small shop-keeper; employer, sole trader
- * a fish processor; employer, registered company.

As a case study, we have chosen to look in-depth at the development of just one business on the island, that belonging to the Grant family. This story is presented in the form of a detailed analysis of how the business has approached preparation for expansion.

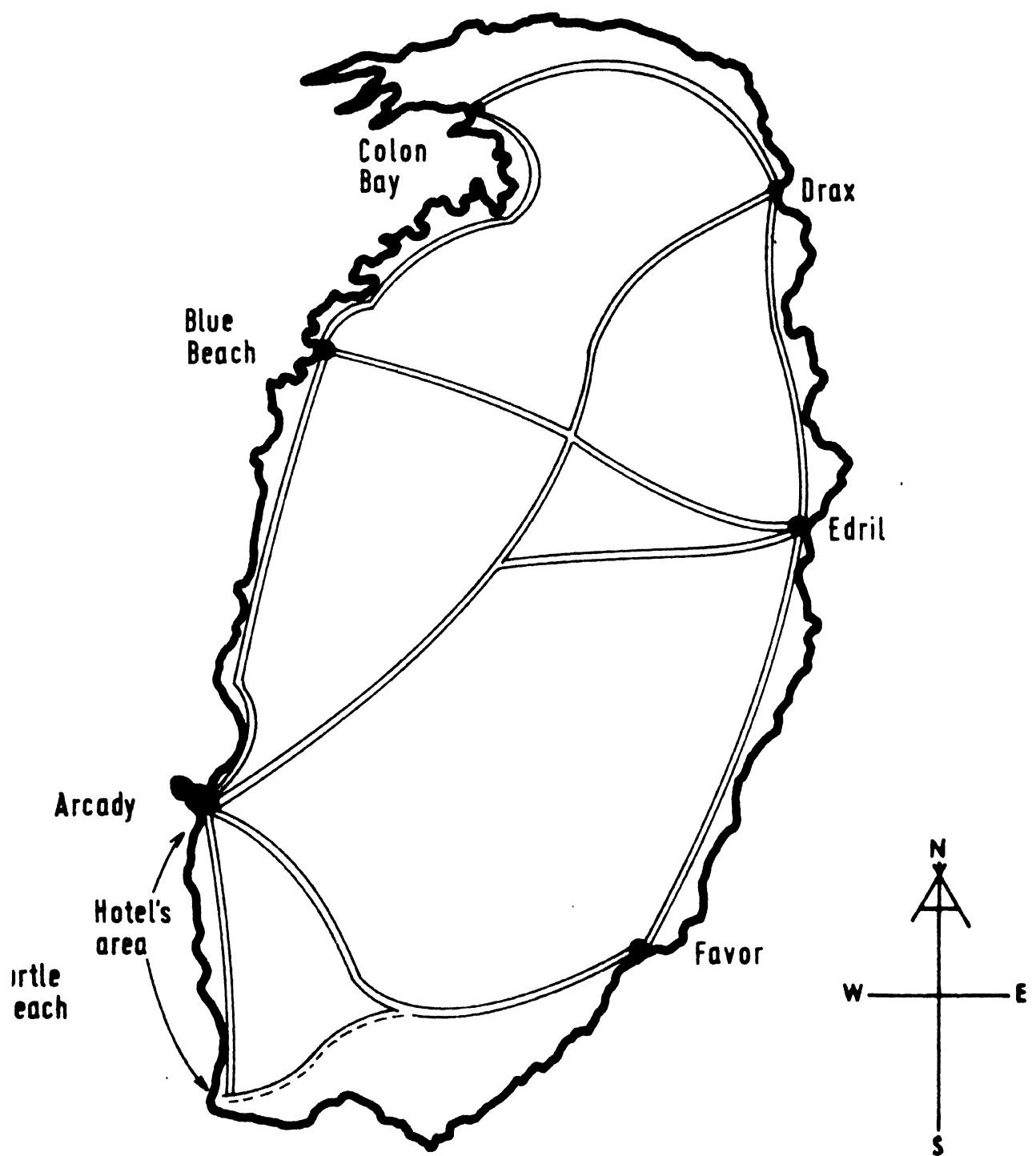
With the use of various business examples, and the case study, it has been possible to indicate, where appropriate, the differences between the types of business, both in structure and way of doing business, while also showing a complete, uninterrupted development plan. Also by using examples from a spread of businesses, you will be able to readily associate your particular circumstances with one business more than others.

The Grant business is described in detail in the following case study. The other businesses are described in outline only, and developed, as appropriate in sections 2 and 3 of the manual.

In the following, an outline description of the island, its economic geography and fishing industry are given first, followed by a brief description of the businesses under study and then the case of the Grant family. When reading the manual, do keep in mind the geography of our make-believe island, the types of business, and the characters who have been described as making up part of the industry. At the same time keep trying to make comparisons between their positions and your own.

Arcadia

Figure 1 Map of Arcadia



1.2. THE ECONOMIC GEOGRAPHY AND FISHING INDUSTRY OF ARCADIA.

1.2.1. Economic Geography

Location

Our case study and examples are set on a small island some 20 by 10 kms in size, located within the tropics. The island is hilly, making road communication from one side of the island to the other difficult, and its coastline is associated with areas of shelving shores interrupted with fringing coral.

Arcadia is agriculturally productive, incorporating a range of cash crops - vegetables and fruits for local consumption, copra and spices for export. Island conditions are not conducive to large-scale livestock farming, but chickens are kept on a small-holder basis. Some logging is undertaken in the centre of the island. Cash crop farms, some of which are quite large, and a few logging camps constitute the main centres of population away from the coast road. The general layout of the island and its capital are shown in Figure 1.

Island population

Total island population is about 60,000 distributed as follows: 10,000 in the capital, Arcady; 10,000 between five smaller towns; the remainder predominantly located along the coastal road.

1.2.2. The Fishing Industry

Species Mix

Subsistence fishing is undertaken all around the island's coast, but commercial fishing ventures are located in or adjacent to the capital and the five towns.

Only two species of fish are of commercial importance in the fishing area; one, a bottom-dwelling rock-cod, the sweetfish, the other a shoaling mackerel-like fish, the dart. The former species is caught by a hook-line fishery, the latter predominantly by a net fishery (gill nets predominate, with some use of feathered hooks and periodic use of beach seines, usually along the Blue Beach coast). Some behavioural factors influence the seasonality of the fishery.

Seasonality of the fishery

Various factors affect the distribution and catchability of these fish, both on a daily and seasonal basis. Thus the sweetfish is available throughout the year, and can be caught most easily over the dusk and dawn periods. Dart, on the other hand, while most easily fished in the early morning on a daily basis, changes its distribution on a seasonal basis moving inshore in the dry season during November to May and offshore the rest of the year. Also, for dart there is some differentiation in the size of the fish in each shoal, the larger fish lying further offshore.

Effects of Weather on Fishery

Apart from these behavioural changes, variations in winds and sea conditions between the wet and dry seasons affect the fishing activity of the fleet.

Arcadia

During the rainy season, winds are strong and from the east. This restricts fishing on the east coast of the island and to a large extent reduces catches to about forty per cent of dry season levels. This effect is much less on the west coast. Fishing in the south east corner of the island is most dangerous during the months of September and October and, for the same period, safest in the bay in the northwest corner of the island between the villages of Blue Beach and Colon Bay.

Catch levels

Total fish catch is of the order of 3,000 tons per annum (see Table 1), split approximately four-fifths dart, one-fifth sweetfish. About two-thirds of this volume is traded, the rest is used for subsistence purposes or for barter.

Table 1 Landings of the Arcadian Fishing Fleet (tons)

Period	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
Dart	128	128	135	447	384	320	135	122	122	108	101	101	95	2326
Sweetfish	47	47	47	54	54	61	61	47	41	47	54	61	54	675
Total	175	175	182	501	438	381	196	169	163	155	155	162	149	3001

N.B. The 52 week year is broken up into 4 week periods so that one period can be directly and accurately compared with any other; calendar month periods are not directly comparable.

Production

As there is no external trade i.e. imports or exports, this gives an annual per capita consumption of about 50 kgs., which is relatively high. However, the marketing and distribution systems for fish are rudimentary although adequate to meet local demand. Fish is sold fresh, in the round, with some smaller quantities of processed products (salted, dried and smoked).

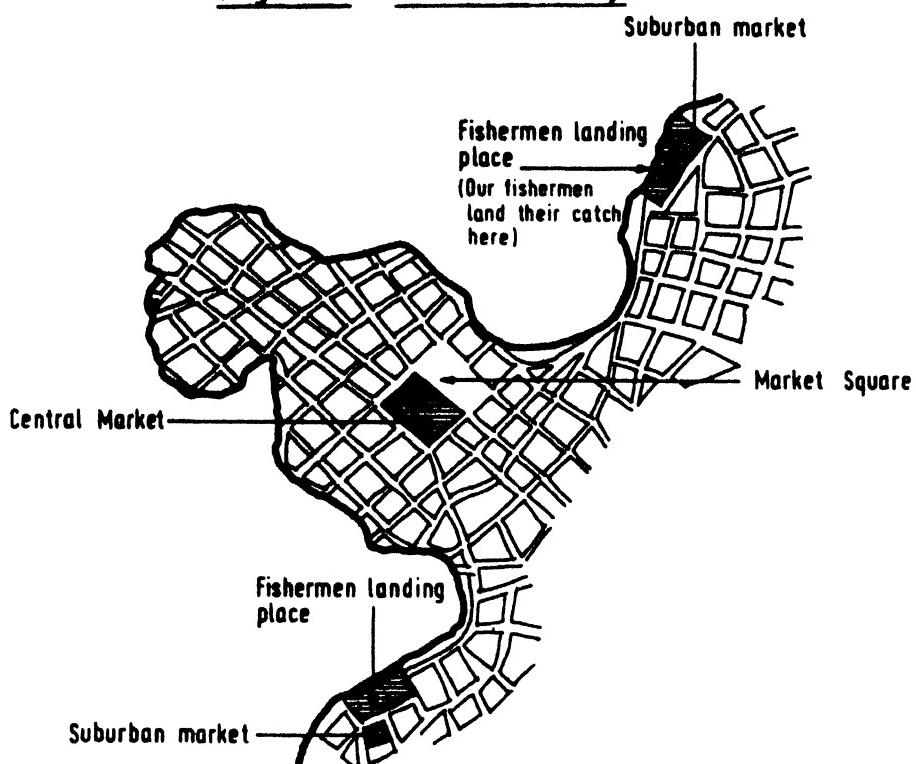
During the dart's spawning season (April/May), roes are collected and processed into a salted and smoked product. At other times of the year small quantities of pickled dart are made by individual families, some for resale.

Distribution of fish

Some difference in the shore-side distribution pattern of fish is apparent over the year. The east coast fishermen tend to sell their catches fresh within the immediate locality of their landing places, and to dry and smoke any surplus for later distribution to the inland farms via itinerant vendors. There is little or no surplus production during the rainy season. By contrast, the west coast fishermen tend to sell fresh, distributing surplus to the capital and only drying and smoking fish for distribution inland when transport to the capital is difficult.

Market outlets

In the towns fish is sold from the beaches and from stalls in the main trading areas, or by street vendors. In the capital, however, there are two small suburban markets and one central market where the municipal government is encouraging the sale of fresh fish. (See Figure 2.)

Figure 2 Plan of Arcadia

Fishing activity tends to be concentrated in the early morning and late afternoon, and suburban and out of town sales tend to mimic this. In contrast, sales in the central market are concentrated in the period 7 a.m. to 2 p.m. each day, six days a week. Bus timetables have been set to coincide with this sales cycle bringing people and merchandise from the countryside and so making allowances for a slightly extended distribution chain.

1.2.3. Examples Of Fishery Businesses Found On Arcadia

A canoe fisherman

The canoe fisherman is called Jack Fine. He lives on the outskirts of the town of Favor, on the South-East coast of the island. Jack presently engages in subsistence gill netting and trap fishing, augmented by some spear fishing and collection of molluscs and shellfish in the inter-tidal zone. Jack appreciates that his current methods of operation preclude surpluses on a regular basis. However, since his children are reaching secondary school ages and his need for cash income has increased he wishes to develop his existing subsistence fishing activities to a stage where consistent surplus can be sold locally. Thus he recognises the need to become a full time fisherman.

Jack's ambition is to work towards a position whereby he can put a deposit down on a new boat and outboard, at which stage he can take a crew with him and join the full-time fleet of gill net fishermen, or the lining and trolling fishery. However, while he is well trained in the

Representative fishing businesses

various fishing techniques and his prowess in this field is recognised by his family and village, he only has limited business experience and does not fully appreciate the value and use of money. Furthermore, he has no quantitative information on the industry and a poor understanding of most operations of the artisanal fleet. He is aware of the size of the subsistence canoe fleet and the number of nets held by members of his own village, but the activities in other villages are more poorly known. He knows of the annual seasons and weather patterns and how these affect fishing.

Jack has a responsibility to provide fish for his immediate and extended family to a regular total of about 20 persons, and pays for various favours on a barter or "in kind" basis by providing fresh fish. These calls on his catch generally determine the amount of effort he puts into his fishing and, until recently, accounted for all of his catch; in those rare instances where he had exceptional landings, he sold the surplus at the town market. Since he has decided to try for a larger boat, he has put more effort into catching fish for sale, but has still continued to provide for his family and meet his social responsibilities.

He is expected to tend the family garden/farm, which is an essential provider of fruit and vegetables to the family and extras for the annual feasts. He must also take part in village and family affairs and is expected to attend men's meetings and village councils. His fishing activities have, however, already started to cause him to fall down on some of his social obligations and these have been commented on and are causing him some worry. His argument has been that these are necessary if he is ever to be able to get a bigger boat, which in turn will enable him to catch more fish.

The Fisheries Department and the Development Bank have asked Jack to provide details of how he intends to develop sufficient funds to put down a deposit on a new boat, and how he intends to operate his business. This has caused him to re-examine the whole of his current and future operations, and with the help of the local fisheries extension officer, and one of the loan officers from the bank, this is what he is doing. His main tasks are to identify his present and future production, his present and future sales (and social contributions) and his costs and revenues. Side issues are establishing the markets for his fish, the quality of the fish and the options available to him for handling and storage.

A dinghy fisherman

Dennis Parr owns a small wooden dinghy and outboard engine and is one of three full-time fishermen operating from Favor. In addition to his two competitors, Dennis competes with fourteen part-time fishermen, including Jack.

Dennis employs two crew to work with him, Jerry and Nick, each of whom receives a small weekly allowance and an agreed proportion of the total revenues. The three of them work happily together, fish on a regular basis and sell the bulk of their catch at the beach.

Normal fishing involves setting a few gill-nets for dart, and then moving from site to site to hand-line for sweetfish. During June to August dart can be caught using feather lures; often more productive than gill-netting at that time of year. In addition the fishermen sometimes do a little spear-fishing and look for crawfish, using kerosene lamps, on the exposed off-shore reefs during new moons.

Dennis owns his boat and engine outright but has recently been having increasing trouble with his 8 h.p. outboard. He now wants to investigate the relative costs and benefits of investing in a small inboard diesel engine.

He has a small lock-up on the shore-line at Favor where he keeps his engine and stores his gear.

A loose association

The Grant family has comprised professional fishermen for three generations and now owns two boats, but has also developed fish selling interests. Grandad represents the second generation and still sometimes goes out in one of the boats, but the business is now under the control of his sons Bob and Frank. Bob, older and more worldly than his brother with a better and broader education, is overall manager. Frank, the seaman of the two, skippers one of the boats and looks after the seagoing side of the business.

Two nephews of theirs, Chris and Pat, operate as crewmen on one of the boats under Drew, a hired skipper, and two other local men, Neil and Steve, crew for Frank.

Bob and Frank's uncle, Henry, operates a fish stall in the central market, and takes his instructions from Bob. In buying and selling, however, he is his own master and this is accepted by the others.

Of the two boats one, Grandad's old boat, is an open whaler, built 20 years earlier and fitted with a small outboard, while the other is also a whaler built by Grandad, Frank and Bob ten years ago. This second boat, apart from being of more recent construction is built to a more robust design and carries a slightly larger outboard engine (see Table 2).

The business is located on the shore just to the north of the capital. Premises are a small lock-up on the shore-side with a large overhanging coconut frond roof. The business has access to a small wooden piled jetty just along the beach, where the two boats are moored. Fuel, provisions, fish and outboards have to be transported by hand between the store and the jetty. A short track, suitable for motor vehicles, connects the store to a major road some 150 metres away. This jetty and stretch of beach are shared with about a dozen canoes and four other whalers. In all there are eight lock-ups similar to Bob's.

Henry operates from a stall in the central market area where he moved to the previous year. Due to local trader and municipal practice fish traders have as yet not been allowed to trade from within the new covered market and so Henry holds a stand amongst the fruit and vegetable traders to the side of the central square. While a site in the covered market would cost more in rent, it is felt that improved facilities and higher sales would offset these costs. The observed prejudice of officialdom is in marked contrast to the policy of the Fisheries Administration, which is very much in favour of fish vendors working from custom designed premises in the covered market.

Representative fishing businesses

Table 2 Grant Family: Vessels owned by the business

Vessels		Original Costs (\$)	Current Value (\$)	Current Replacement Costs (\$)	Economic Life (Years)
Grandad's Boat					
L.O.A.	27 Ft	2,000	3,000	6,000	15
Beam	5 Ft				
Wooden carvel built open whaler					
Age	20 years				
Engine	12 HP outboard	800	150	1,200	3
Age	3 years				
Frank's Boat					
L.O.A.	28 Ft	5,000	6,000	8,000	15
Beam	6 Ft				
Wooden carvel built open whaler					
Age	10 years				
Engine	20 HP outboard	1,500	500	2,000	3
Age	2 years				
		9,300	9,650	27,000	

Henry's stall consists of a simple wooden structure comprising an awning of coconut fronds and a table of split bamboo. Running water is available in the square, but at a location some 100 metres away. The floor in the stall area is made of compacted soil only. Henry operates the stall by himself from about 6.30 a.m. to soon after mid-day on weekdays, and is joined by Bob on Saturdays, market day, when sales are greatest.

A fishermen's co-operative

The Arcady Fishermen's Co-operative Society is located to the north of the capital. The society was formed three years ago and currently boasts nine members. The nine fishermen previously worked from the same beach, helping each other out, on an irregular basis, with repairs and maintenance, and sometimes on marketing. At the instigation of the Fisheries Department they were encouraged to increase their level of cooperation and eventually to register as a co-operative.

Originally made up of six canoe fishermen using four canoes and three using one sail powered dinghy, the canoe fishermen have now clubbed together and bought two dinghies with small outboards, and the original dinghy fishermen have also invested in a small outboard to augment their sailing. In each case, one person has a significantly larger share in the boats than the others, although all have an interest.

The fishermen have received loans, through the Arcadia Co-operative Federation, from the Development Bank, and while they would like better

shore facilities, they have been told that they must first get the business on a firmer footing. This has caused them to seek the assistance of the local fisheries extension officer and the co-operatives' officer.

On the sales side, each of the boats sells its fish on the beach, paying a proportion of revenues into the co-operative to finance bulk purchases of equipment, fuel etc., but on Wednesdays and Saturdays they put all their catches together for sale in the suburban market just north of the town centre. Here they hire a stall for the day. They take it in turns to sell from the market, and tend to make an extra effort to ensure bigger catches for these "market days", than others. A larger part of the revenues for these market days is retained by the co-operative to boost working capital and savings.

A fish retailer

Fergus Slater runs a small permanent fish shop not far from the Arcady central market. He took over the shop from his uncle some six years ago and has managed to make a bare living from it to date. He stocks salted, dried and smoked fish, and receives a daily supply of fresh fish. Since the opening of the new central market he has noticed that fewer people tend to shop down Orange Street, where his shop is located, and he is now concerned about losing business to the market.

In the shop he has few facilities - shelves, work bench, display bench, tap, water and electricity. He buys his fish through agents located on the East coast for cured/processed fish, and along the North West coast for fresh fish. He has no facilities for holding fresh fish overnight, but instead has an arrangement with a street vendor, who takes all unsold fish and fries it for immediate sale.

A fish processor

Don Marsh runs a small fish processing facility from premises down on the main quay of Arcady. His business is concentrated on the production of various smoked fish products with the main line being lightly brined and smoked split dart, and additional products and seasonal production of smoked dart roe. His main sales outlets are hotels, restaurants and retail shops. Raw material is purchased from the local artisanal fishermen, and fish is smoked using a wood-fired custom-built kiln located in a yard at the back of his lock-up.

Don has another six monthly payments to make to the local bank who lent him the money to set up the business. A contingent of this move was that Don had to put forward forty per cent of the start-up capital, and register the business as a limited liability company. This he did, forming the Seahorse Company Ltd. He employs one young assistant, who helps in the preparation of the fish.

As of now, a recent distribution of leaflets, and personal visits, has meant that the majority of his production is sold against informal contracts, and collected by the customer from the premises. Don is now examining his need for additional production capacity.

1.3. THE CASE STUDY - THE FAMILY BUSINESS

1.3.1. Typical Operation

Fishing

Continuing from the brief description given above, a typical period in the operation of the Grant family business during the dry season is as follows. At least one boat puts to sea on Monday morning at about 2.00 a.m. to fish within three or four kilometres of base. The crew first set their string of gillnets at one of many known fishing sites - usually in shallow sandy areas, but sometimes over coral. They then motor to a number of sites over the next four to six hours where the crew fish using their handlines. They return to haul their gillnets at any time from early to late morning depending on the weather conditions and their catch of demersal fish. They return to base where they are met by Bob who informs them of market conditions so that together they may decide what proportion to sell on the beach, what to send out to the suburban markets, what to send to the central market for that, or the following day, and what to separate out for processing.

This system is repeated through to Friday, with at least one of the boats at sea each day. Little commercial fishing is done on Saturday or Sunday. Occasionally one of the boats will put to sea in the afternoon and evening, landing fish principally for distribution the following morning.

Sales

On landing, the crew divide the fish up and the skipper undertakes immediate beach sales while the other fish is taken to the lock-up. Some fish is sold to two regular hawkers for distribution locally while a taxi is hired to take fish to the northern suburban market and the central market. Since moving to the central market stall, prime fish is packed in ice for immediate distribution to the central market or stored in an insulated box in the lock-up for transport early the next morning to Henry's stall. While this operation demands greater expense in terms of ice purchase, the higher prices obtained cover this.

Fish for local sale is stored with a wet cloth over it; but occasionally with some ice. Fish for the market is iced and stored in an insulated container.

Up until a year ago, when the Government completed a block ice plant at the main city jetty, Henry sold fresh fish from the northern suburban market each afternoon and evening. It was decided, however, to give up this location in preference to selling iced fish at the central market. This move caused considerable worry to the business at the time, but has since proved wise.

Processing

If there are supplies surplus to above requirements they are either taken for consumption by the fishermen's families and of close friends and neighbours, or the fish is processed. In the latter case the fishermen, and sometimes members of their families, proceed to gut and split the fish ready for drying on a number of split bamboo racks erected for this purpose. On occasions such as these a member of one of the families is

called upon to watch over the fish. After the first day of sun-drying the fish are brought indoors overnight (drying normally takes 3 to 4 days during the dry season). Dried fish is sold to other villages, by Henry, or by wholesaling to other shop and stall traders.

Fish is smoked rather than sun-dried during the rainy season and two oil drum kilns are available for this purpose.

Repairs

Repairs to net and equipment take place as and when necessary, but earlier rather than later in the week. Major repairs again occur as necessary, i.e. when things break down to an inoperable level. There is no formal preventive maintenance. Frank knows his way around boat repairs, and particularly outboard engines. He is sharing this knowledge with Chris, his nephew. Where possible, major repairs and overhauls are left until the rainy season when fishing is more difficult and hazardous and enforced down-time is greatest.

1.3.2. The Future

A number of development options now present themselves to the business, which will require fairly quick management decisions. They are:

- * With the completion of the covered central market some six months ago, and the construction nearby of a Government cold storage complex, incorporating block ice and chill space in addition to cold storage (chill space is available for public rental on a daily, weekly or longer basis), the business has to decide whether it should get Fisheries Administration assistance to obtain a stall in the covered market. A corollary of this is for the business to establish to what extent it should involve itself in buying fish from other sources for sale in the market.
- * The Fisheries Administration, with the assistance of the Arcadia Development Bank, is attempting to upgrade the artisanal fleet by providing newly designed, locally constructed, vessels on a government sponsored loan scheme. International aid finance has been provided to allow a number of these vessels to be used for demonstration purposes. Frank has been offered one such vessel for between one and three months in order to test it out and to qualify for a development bank loan to purchase it or a similar vessel. The business must decide whether or not to make such a move.
- * It is already apparent from the increase in business brought on by the move to the central market that the financial management of the business is not fully up to coping with the situation and that already some bad feeling has arisen between the fishermen and the shore staff over the division of income, most noticeably between Frank and Henry. The business must overcome these frictions and review its methods of accounting.

Buying a third boat

1.4. BUYING A THIRD BOAT

1.4.1. Defining The Problem

Data Base

Having discussed the situation with Frank, Henry and Grandad, Bob went along to the Fisheries Development Officer to ask for his advice and assistance in the matter of securing a boat loan. Ned, the Development Officer, asked Bob to get together as much information as he could concerning the past and current operation of the business, prior to the two of them meeting with a representative of the Development Bank to discuss the matter. In turn Ned would dig out whatever information he had concerning national fish supplies, consumer behaviour, fleet composition and catch rates for the subsistence and artisanal fleet etc..

Ned's data

Ned was able to come up with some good data, largely because the department had recently been gathering information on which to base development projections for the next five year plan.

Basic data thus comprised:

- * national production figures (see table 1 above)
- * average whaler catch figures (table 3)
- * average number of days fished by the whaler fleet (table 3)
- * average monthly prices of fresh fish (table 4)

Bob's data

Bob on the other hand was unable to provide any written or concrete information concerning the business, since as a matter of course he did not keep records of any transactions undertaken, and all operations in the business were done on the basis of consensus agreement. Each member of the business had trust in the others and knew what monies went to whom in a way that could be termed "open accounting". No records were kept of days at sea, repair costs or schedules, catches or landings. Similarly no records were kept of earnings, all transactions being in cash or kind.

The Meeting with the Development Bank

Shortly after Bob's approach to the Fisheries Department, he was invited to a meeting at the National Development Bank offices where he discussed matters with Vin, the representative of the bank responsible for controlling loans to the agriculture and fisheries sectors, and with Ned, the Fisheries Development Officer. The meeting was cordial, but Bob felt a little out of place in the formal office setting and amongst the unaccustomed furnishings of the bank. He was thus not as relaxed or as forthcoming as he would have liked. Nevertheless the meeting was informative and positive, although at first it looked as if the "institutions" were going to be as unhelpful as the fishing industry generally assumed them to be.

Table 3 Average Monthly Landings And Average Catch per Boat per Fishing Day

Period	<u>Average Whaler Catches (Kgs)</u>													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Dart	333	367	434	1067	1100	933	800	600	467	200	233	333	333	7200
Sweetfish	233	248	258	267	267	300	367	275	250	268	300	300	267	3600
Total	566	625	692	1334	1367	1233	1167	875	717	468	533	633	600	10800
Days fished/ Boat	10	11	12	10	9	8	8	6	6	7	10	12	11	120

Catch Rate (Kgs/day/boat)

Period	1	2	3	4	5	6	7	8	9	10	11	12	13	Year
Dart	33	33	36	107	122	117	100	100	78	29	23	28	30	60
Sweetfish	23	23	22	27	30	38	46	46	42	38	30	25	24	30
Total	56	57	58	134	152	154	146	146	120	67	53	53	54	90

Table 4 Average Monthly Fresh Fish Prices (\$/kg)

CENTRAL MARKET Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Sweetfish	1.50	1.50	1.50	1.75	1.65	1.50	1.75	1.80	1.90	1.65	1.70	1.60
Dart	1.00	1.09	1.00	.60	.50	.80	.90	1.15	1.15	1.20	1.25	1.20

SUBURBAN MARKET

Sweetfish	1.18	1.18	1.18	1.38	1.16	1.18	1.38	1.27	1.33	1.16	1.21	1.10
Dart	.88	.96	.88	.60	.51	.76	.80	1.01	1.01	1.11	1.16	1.11

Note: Estimated and recorded by the Ministry of Planning as part of their record of retail prices and calculation of the retail price index.

Buying a third boat

At the opening of the meeting, Vin started to describe the activities of the Development Bank and how it was established to help people further develop their activities as primary producers, and to help others to set up and/or further develop their businesses, large and small. Ned had informed Vin of the nature of Bob's request for a boat loan and so Vin began to explain the policy of the bank. Vin explained that the Bank was very interested, in policy terms, in supporting requests of this nature and would look favourably on any application for funds that Bob should make.

Vin then went on to explain that banks, of whatever kind, were in the business of making money, and that they, like most other businesses, had to set and follow certain rules of operation. In their case they had to ensure that any money they lent - to an individual or to a business - could and would be repaid, with interest, within the terms of the loan agreement. While they, as a development bank, had governmental support to invest in the relatively high risk sectors of agriculture and fisheries, they still had to show profitable investment. Consequently they would need to establish how good a businessman Bob was, what kind of business he was running, whether additional investment in the business could and would pay for itself, and whether or not Bob and his business were what was generally termed "credit worthy", or a "good risk" (see 3.5.5).

He explained that he was aware that small fishing businesses kept few records, were as a general principle not well off and that little in the way of cash or capital assets could be put forward as security for a loan. Bearing this in mind, he and the Fisheries Department had come to agreement on how best to tackle these "disadvantages" as far as the normal rules of investment went, and that if Bob would bear with them and help them as much as possible, they should be able to reach a favourable outcome.

Vin then went on to describe the need for the preparation of an outline feasibility study for the acquisition of a third boat, the need to enquire further into the actual structure and operation of the business, and the need to establish the competence and performance record of the company and its members. He then asked both Bob and Ned to describe what sort of information was available concerning the business.

Bob explained, as far as possible, that really he had no records, but ran a sound and profitable business. Ned explained that basic industrial figures were available, that some data were available specifically on the section of the industry to which Bob and his companions belonged, and that he himself and a number of other government and community officers could recommend Bob and his business as suitable candidates for a development loan.

Vin then requested Ned to help Bob prepare an outline feasibility study and submission for a boat loan. A further meeting was arranged for three weeks ahead.

Explaining the problem

Ned and Bob then withdrew to a small eating house where they continued their talk over a cold drink. Having recapped on the general scope of what was required to make up an outline feasibility study, Ned identified the main information requirements.

What was needed was a detailed breakdown of the structure of the company, its objectives, reason for existence, plans and short-term foreseeable goals, a qualitative analysis of its recent performance and a quantitative assessment of its current and future performance; an analysis of what difference the acquisition and operation of a third boat would have on the operation; performance and financial figures on the viability (profitability) of the company (as outlined in Figure 3).

Figure 3 Requirements for preparing a feasibility study

The detailed list of requirements that Ned sought were:

- * a definition of the principal objective of the organisation
- * a description of its secondary objectives
- * a description of the structure of the company
 - its legal form
 - its assets
 - its personnel
 - its financing
- * a breakdown of its mode of operation
- * a breakdown of its performance over the last few years
- * establishment of its development policy, its production policy and its marketing policy
- * an analysis of what changes might be expected if a third boat were added to the fleet, under the following heads:
 - production
 - manpower
 - handling
 - financing
 - marketing
 - profitability
- * analysis of any other problem areas that might affect or be affected by the new acquisition.

Bob quite reasonably and straightforwardly said that these requirements were such that he could see little way in which he could provide such information, since nothing existed on paper, and that it was therefore impossible to produce. Despondently he said that he could not see either the Fisheries Administration or the Development Bank helping him, and that he should either give up the idea of getting a loan, or seek more "straightforward" sources of finance - a private financier, trader or middleman. Ned said not to be so hasty and that he would explain how it could be done.

1.4.2. The Generation Of Information

Ned explained that what at first looked impossible, because of lack of information, was quite possible if approached in the right manner. He explained that if identified problems were approached logically, simply

Generation of information

and methodically, many would be solved. He asked Bob to bear with him for a while, and to answer his questions and prompts to the best of his ability and knowledge.

Objectives

Thus to the question as to what the principal objective of the business was, Bob answered - "to make money". When asked why the business was established, Bob felt quite at a loss - "it just happened, the business was just there." Ned then argued point to point, prompting Bob to define much more clearly just what was in his mind when he said - "to make money" - and to explain - "it just happened".

Ned was able to write down the following notes (see figure 4) on the primary and secondary objectives of the business. Ned asked Bob to rank these objectives into three groups: 1 = very important; 2 = important; 3 = less important.

Reviewed in this way it became apparent that, at least for Bob, money was not the principal objective for running the business. Nor was it the common reason of providing for the members' families. It appeared that the principal objective was conceptual involving the maintenance of tradition, and upholding it in such a way as to attract the praise of their families, their peers and their country.

This conclusion surprised Bob, but not so much Ned. They decided, however, to review and extend this list, if necessary, in the company of the other members of the business. For the time being, this ruling reason was taken as the Fundamental Objective of the business.

Business structure

They discussed the structure of the company for some time, both defining its current form, and arguing as to whether or not this form was suitable, bearing in mind planned expansion. In terms of its legal status they defined the enterprise as a loose business association of Bob, Frank and Henry. Between them they owned and managed the business and employed Drew and the crew men. Grandad best fitted under the definition of technical advisor. Under the laws of the land such an association had no legal responsibility to account for itself - either by registering its existence, or keeping, and submitting for inspection, its financial records - and was not subject to any form of taxation.

Legal responsibilities

On an individual basis, however, they were in law subject to taxation, but traditionally the difficulties in assessing and collecting income tax from the fishing sector had meant that this right was not enforced, and the government was happy to maintain this situation, interpreting it as a type of subsidy to the sector. Similarly, it was law that all people receiving a wage should contribute directly or indirectly to a National Insurance and Social Benefit Scheme; share fishermen were not normally considered to be wage earners, although they were encouraged to contribute voluntarily to the scheme.

Figure 4 A list of the primary and secondary objectives of the business

<u>Rank</u>	<u>Objectives</u>
2.	to make money
3.	to maintain and improve upon a standard of living
3.	to provide for the family
2.	to provide employment for the immediate family, relations and neighbours
3.	to utilise the skills and equipment already possessed by the family
2.	to provide for their children's future well-being
1.	to continue a tradition established by their fathers and grandfathers
3.	to provide food for their families and sufficient surplus to exchange for other basic goods
3.	to exploit the only resources available to them
1.	to fulfill an ambition to participate in a rewarding and successful fishing venture
1.	to be a modern and productive member of society
3.	to help the country prosper and develop
1.	to be able to hold their head up high within their families and community - to develop prestige

Generation of information

Distribution of revenues

The enterprise could not be defined as a partnership since there was no formal agreement between the three parties, and there was no fixed method of assessing and distributing profits. It was much more the case that after deducting costs, the monies were distributed according to a perception of responsibility. Frank and Bob took high amounts, because of their role in upkeeping the boats and shore premises. Henry also received high remuneration, since it was begrudgingly admitted that he had a lot of responsibility for disposing of the catch, needed working capital and was from time to time out of pocket; he was also the oldest of the group. However, as the system of payments had evolved, with Henry selling greater quantities of fish, he was now paid the most: something with which other family members were in strong disagreement. Drew was paid a better wage than the crew because of his additional responsibility yet he and the crews were currently dissatisfied although Bob had taken steps to alleviate this dissatisfaction.

Payment was in fish and cash, and allowances were made for temporary individual commitments - for example paying school fees or buying a new kerosene lamp. A member of the enterprise could, with the approval of the others, take additional cash or fish to cover such expenditure, in the form of a loan, either to be discounted as each of the other members also drew such loans, or to be repaid in cash or kind. Most commonly such a loan was seen as a social reciprocal responsibility by the recipient and he would pay it off by helping one or more of the others out in the garden, helping build or repair a house, or undertaking extra fishing duties.

Record keeping and type of management

It was noted that Vin and the Bank would certainly require the business to keep some written records of its transactions and to operate on a more formal basis in the future. Ned felt, however, that if the loan repayments were kept up, the Bank, as with most Banks, would have no complaints, but that rather for the success of the business, some management changes and improvements would almost certainly prove beneficial. They then went on to discuss the business assets.

Business assets

Clearly the largest capital assets of the business were the two boats, followed by the shore premises and equipment, followed by the stall in the central market. Getting the information from Bob, Ned jotted down the particulars of the boats. Having agreed on the basic description of the boats they discussed the original and current values of the boats. These are as shown in Table 2. (See above). It is interesting to note the apparent discrepancies in the figures, with current value above original cost. This is due to the effects of inflation, which are explained in more detail in figure 5.

Fishing equipment and accessories were listed as shown in Table 5, and the shore and market facilities as in Table 6. Once again the effects of inflation can be seen.

Table 5 Fishing equipment owned by the business

	<u>Original</u> <u>Costs</u> <u>(\$)</u>	<u>Current</u> <u>Value</u> <u>(\$)</u>	<u>Replacement</u> <u>Costs</u> <u>(\$)</u>	<u>Expected</u> <u>Life</u> <u>(years)</u>
Recurrent Items				
5 lengths of gill net				
2 x 2.5"	150.00	15.00	180.00	1
2 x 3.5"	170.00	17.00	204.00	1
1 x 4.5"	100.00	10.00	120.00	1
ropes and twine for gill nets (gill nets are hung - salvaged by the fishermen themselves)	50.00	10.00	70.00	1
2 cast nets	50.00	20.00	70.00	2
nylon line, range of hooks, leads, wire trace, crimps and crimping pliers	60.00	20.00	80.00	6 months
Capital Items				
2 sets of oars	120.00	60.00	150.00	5
anchor ropes and stones	80.00	60.00	120.00	3
miscellaneous equipment	100.00	10.00	130.00	3
TOTAL	880.00	222.00	1,124.00	

Table 6 Shore and market facilities owned by the business

	<u>Original</u> <u>Costs</u> <u>(\$)</u>	<u>Current</u> <u>Value</u> <u>(\$)</u>	<u>Replacement</u> <u>Costs</u> <u>(\$)</u>
Shore			
Lock-up	30	0	50
2 oil drum kilns	10	6	20
Insulated box	5	2	20
Four plastic fish boxes	1	1	18
Six knives	6	0	15
3 pressure lamps	45	24	75
2 oil lamps	16	6	24
3 enamel washing bowls	8	0	9
1 storage bin	3	0	5
2 chairs	5	0	10
1 table	5	0	15
1 set of scales	8	6	12
	---	--	---
	142	45	273
Market			
1 split bamboo stall	1	0	1
2 enamel washing bowls	5	0	6
1 storage box	3	0	12
1 old insulated freezer box	3	0	8
1 cutting board	0	0	0
3 knives	3	0	9
1 de-scaling brush	1	0	1
1 set of scales	8	6	12
	---	--	---
	24	6	49
TOTAL	166	51	322

Note: Figures rounded to nearest \$.

Figure 5 The effects of inflation

The boats were relatively old, yet their actual current value far exceeded their original construction costs. Obviously the vessels had held their value (i.e. the rate of depreciation had been low) while at the same time the comparable cost of building a new boat had risen enormously. (Although price could have increased as demand exceeded supply).

Ned and Bob agreed that the increase in their boats price over the years could be as a result of the actual rise in the cost of living of town's people which meant that labour costs had increased to keep pace. Even by paying in kind, the using of specialised services such as the sawyer, blacksmith, carpenter etc. could come expensive. However, with the bulk of work provided from within the family, labour costs could be substantially reduced. The major cost rises were thus in the price of wood - most good inland wood went for export, and therefore prices tended to be set by the export price of wood, and a premium had to be paid to get properly seasoned wood. Further, the costs of nails, screws, tools, etc. had escalated since more and more of such articles were now imported from overseas rather than manufactured from locally available materials. The inflation in the price of these items had thus led to an increase in the price of the finished product i.e. the boat.

In each case information was sought on the year of purchase of each piece of equipment, its original cost, the revenue the original equipment would generate if sold on the open market today, and its replacement value new. In each case where the actual figures could not be remembered, a reasonable rounded estimate was made, and allowances were made for changes in fashion, (e.g. yesterday's engine may be heavily marked down today, because new models have since appeared), maintenance, and the ease with which the same article could be built today, even if in different materials, e.g. the shed. No allowance was made for the labour used in building a particular item, or rigging nets etc., as it was considered that where the fishermen themselves undertook such work, labour was free. This was not strictly true, especially when such activity was undertaken instead of fishing or detracted from other money earning activities.

Finally at this meeting they discussed the not so obvious assets of the business. Ned explained to Bob that these sorts of invisible assets were often almost as important as the physical assets of a business. Ned listed the various factors to be considered, as in Figure 6, and then went on to explain the value of invisible assets, as highlighted in Example 1.

Example 1 The value of invisible assetsPractical benefits of invisible assets - 1

An example is if the boats and equipment were well maintained, and the seamanship skills of Grandad and Frank generally recognised, then attracting good crew and additional skippers would be much easier than might otherwise be the case. Skilled and motivated skippers and crew would tend to catch fish more efficiently and accordingly more cheaply than a poor crew, skipper etc.. This could then allow the business to trade at the same level, allowing the work force greater leisure time, or alternatively, overall landings and sales could be increased with the same amount of effort as before.

Practical benefits of invisible assets - 2

A second example would apply to marketing and sales. If the fishermen, shoremen and salesmen were not respected, were thought to charge excessive prices, always to exaggerate the quality of their fish, and generally thought to be overly "cheap", then customers would tend to place their loyalty elsewhere, buying from someone, or some organisation, in which they had a greater confidence. In a small village community, social and familial loyalties will tend to exaggerate these sorts of feelings still further, resulting in poor sales and trading results.

Practical benefits of invisible assets - 3

A third example would relate to the attitude of the Fisheries Administration and Bank towards the business. Having people who would be prepared to act as referees on your behalf, if not as guarantors; having the genuine respect of company; being forward looking, innovative but not rash; being stable - coming from stable families; having property; having successfully taken on family and community responsibilities. All these would encourage the institutions to look favourably on the business and its members. Such favour could take a practical form in their ability to offer loans, other financial or technical services, to stand as a referee or guarantor for the business or its members, to provide overdraft facilities, more flexible repayment schedules, or lower rates of interest.

Goodwill

Thus, the amount of "goodwill" that a business can generate can be of immense importance and is often the missing ingredient in distinguishing a moderate business from a successful business. Under pressure, the level of such goodwill can actually be quantified - perhaps by an estimate of the additional long term sales that such goodwill generates, or by the increased efficiency so generated, or the material results of a happier work force etc..

Figure 6 The invisible assets of the company

These were broken down as follows:

- * recognised respect for the seamanship and fishing knowledge of Grandad, and that passed on to Frank
- * well constructed and maintained vessels
- * a sound skipper in Drew, and enthusiastic and quick learners in the crewmen
- * a general opinion from the community that Bob was a good man, and knew what he was doing
- * the pre-eminence of Henry amongst the stall holders of the north suburban market, and recognition that he was an aggressive but courteous salesman and one always looking for new "angles" - new ways of selling fish or new technology - they saw these attributes as being largely responsible for his move to the larger and more competitive central market
- * a sound but not excessive respectability within the community
- * ownership on the part of Bob, Frank, Henry and Drew, within the village system, of their houses and gardens (about 1/4 acre each), but not of any other land
- * a good site on the beach close to the jetty and the road
- * a family acknowledged for its forward thinking, independence and determination

Valuation of fixed and variable assets

In this case then, Ned and Bob had estimated that over the years the business has spent \$9,300 on the vessels, an average annual amount of about \$680 on fishing equipment and other miscellaneous items, and \$166 on shore facilities. This compared with a current asset value of \$9,650 for vessels and engines, \$222 for fishing gear and \$51 for shore facilities. A comparison of these figures clearly indicated the effects of inflation, replacement costs and valuation and, to some extent, the linked phenomenon of the escalating prices of imports (see Section 3.5.3).

Replacement costs

At the same time as looking at purchase price and current values, both Ned and Bob appreciated the need to establish the replacement cost of any item. With inflation, such a price would almost inevitably be higher than the original purchase price, and often substantially so. Bob and Ned therefore made estimates of such prices, and looking at Example 2. will help you understand their way of thinking.

Example 2 Establishing replacement costs

An example of the differing aspects of replacement costs could be made with reference to the enamel bowls and knives. Bowls were common household utensils and could be bought from most shops and stalls. When the business was re-equipping some five years ago, these bowls cost \$2.50 each. Today they would cost \$3.00, representing an annual average price increase of about four per cent. They would have no second-hand value. By contrast knives had gone up from \$1 each to \$2.50 in only two years, so prices had increased at the rate of about 55 per cent per year. Knives have a shorter life, and have no resale value.

Obviously in attempting any sort of costing of the business - past, present and future - the ever changing factors of inflation, depreciation, appreciation and replacement costs must be weighed up with some accuracy. If the profitability of the business were geared to replacing goods at their original price, the business would fold the first time a substantial replacement had to be made. Even worse, if some allowance was not made for the replacement of equipment at any time then such a purchase could not be made without external funding.

Typical sources of finance

Sources typically providing funding would normally consider that making allowance for replacement costs by means of depreciation allowances and retained profits was a normal sound business practice. If such practices were not in use, a bank or comparable funding agency would be reluctant to lend money for such a purchase.

In contrast, traditional sources of finance are normally less restrictive, and would be generally better able to respond to the needs of small businesses where no records are kept, no planning undertaken and no money put aside for the future. Unfortunately, however, local financiers, traders, middlemen etc. tend to charge commensurately higher levels of interest than modern banks, governments, etc. in order to finance the type and level of risk that they are taking on: no guarantee of repayment, no track record, probable irregular repayment, probable calls for further financing. This form of financing would be expensive in any country. Unfortunately, these traditional systems have also an all too prevalent habit of linking a businessman to a system from which he cannot escape, compromising his business and his employees', his own and his family's future.

A more structured approach to business and business management would, therefore, tend to allow a businessman to side-step these problem areas, to be in better control of his business affairs, to seek cheaper finance and generally to reduce the risks of failure and thus increase his chances of success.

In summary then, a statement of the asset of the company was that the boats and engines cost \$9,300 to build, had a current value of \$9,650 and replacement costs at current prices of \$17,200, although such costs would not have to be met immediately all being well, and not all at the same time. For the fishing equipment cost price was \$880, current value was \$222 and replacement value was \$1124, spread over several years. Shore facilities had a cost of \$166, a current value of \$51 and a replacement value of \$322, all of which would need to be replaced in the next year or so.

Generation of Information

Developing information - achieving the impossible

At this stage Ned pointed out to Bob that starting from an apparently impossible situation, with no developed information base, they had put together a fairly good understanding of the objectives of the business and its assets. He went on to say that if all the other necessary information could be developed in the same way, it would provide a fairly accurate insight into the structure and operation of the business, and into the possible future of the business.

At this point they called it a day, and arranged for Ned to visit Bob and the others at the shore-base one afternoon in the following week, when they would continue to build up a picture of the business.

1.4.3. Building Up A Picture Of The Business

Following the next meeting at the lock-up on the beach, Ned spent some time putting together the information that he, Bob and the others had managed to generate under his questioning. The result was a tabulation of the following:

- * the principal objective of the business
- * the secondary objectives
- * the immediate development plans for the business
- * the assets of the business, together with depreciation and replacement schedules
- * operating costs for the fishing and shore sides of the business
- * accounts for the past three years
- * the current marketing strategy

Within weeks of Bob approaching the Fisheries Administration and the Development Bank, a fairly complete and accurate account of the business over the previous three years' trading had been developed. While Ned had to be applauded for orchestrating this development, he was emphatic in showing Bob and his colleagues that it was through their efforts, knowledge and memory that they had been able to develop what was in essence a model of the business. He then explained that they had almost enough information on which to develop a business plan and to estimate the effects on the business of purchasing a third boat under the government loan scheme. If they could show clearly that the business would benefit from such a development, and that the cash flow of the business would support the appropriate repayment schedule, then he could see no reason why the Development Bank should refuse to support their loan application. The following information was what they had put together.

Objectives

It was clearly established that while Grandad, his brother and his two sons had an overall wish to maintain, and if possible improve, their respective standards of living, their principal objective was to maintain

the strong and progressive traditions of the family, and to maintain the respect of their community. Ranked below this were objectives to maintain safety at sea, to remain profitable, to maintain good standards of living for themselves and the crew, to expand the business and to ensure that they maintained the goodwill of their community, other fishermen, other traders and their customers.

On all these points the other members/participants of the company were in agreement, with the one proviso that, under the ownership of the Grant family, they wished to pursue more immediate short-term goals for their own material advancement, although they too agreed with the principle to look to the long-term success of the company. Drew, the second skipper, was the only one who professed a wish to take on a greater involvement in the management of the business, both to secure his own future in the business and to enjoy and share in the development, growth and profitability of the company.

Each believed the time was right to acquire and work a third boat, but felt that the marketing/merchandising side of the company might not be able to accommodate the increased volume of fish if it were to remain in the same form as at present. Also, everyone felt it would make good sense to sort out the friction between the sea and shore sides of the business quickly and to everyone's satisfaction.

At this stage Ned said that he thought the consensus ideas of the group were sound, and that while each might be expecting rather more from any changes than might actually occur, he felt that it looked good. If the financial analysis proved favourable, he saw no stopping the business. On this note he produced the figure work.

System for sharing out revenues

As could be understood from the description of the organisation, the income of the Grant family and Drew and the crewmen was totally dependent on how successful the fishing season was, the price of fish and the number of days a year that they put to sea. Nevertheless there was a basic system by which revenues were split. The fishing and retailing operations were generally treated separately, although there was no formal attempt to strike a transfer price between the two operations.

With the fishing operation, it was normal for a small powered vessel working in Arcadia that after the deduction of fuel, provisions and other direct operating costs, revenues from immediate fish sales (i.e. beach sales) would be divided into two, with one half going towards the upkeep of the boat and engine, and the other half being divided between skippers and crew. In the Grant's case, the second half would be split into ten portions, with two each going to Bob and the skippers, and one each going to the crew members.

Because only a small portion of the catch was sold on the beach, it was not possible to clearly establish the total value, and in consequence Bob acted as arbiter in establishing what that total value should be, in view of the revenues generated from other merchandising operations. To understand this process, it was first necessary to get a full view of the operation. Production and sales figures were estimated next.

Generation of Information

Production/Sales

From talking with the crew, and the Grant family, a consensus was reached on the proportions of fish disposed of in various ways (see Table 7). It was felt that sales of dart were more important in beach sales, for example, but sweetfish accounted for the major part of sales in the central and suburban markets.

Table 7 Breakdown Of Total Fish Landings By Business (%)

	<u>Past</u>	<u>Present</u>
Beach sales	30	20
Sales to local vendors	15	7.5
Sales at suburban market	30	12.5
Central market sales	0	35
Proportion used for processing	15	15
Proportion taken home by the crew	10	10

Note: "Past" represents the situation before moving to the central market, "present" the current position.

They really had no idea how much fish was actually caught and sold, but felt that in former days perhaps three-fifths was of the dart and the remainder sweetfish. Since moving to the central market, however, they had tended to catch proportionally more sweetfish. Because of the way they fished to satisfy their market demands, they thought a higher proportion of their catch was sweetfish compared to other boats. Further, they remembered that the season before last was generally better than the years before and after it. Concerning the number of days fished, they generally felt they fished more days than other boats with perhaps 130 to 135 days a year achieved by each of their two vessels.

Ned had gained data from the Fisheries Department showing the estimated catch rates for the whole of the whaler fleet in the previous year, as indicated in Table 8. Using these figures, and the Grant's ideas on catch and fishing activities, he was able to estimate the fish sales of the Grant family by outlet for the past three years (see Table 9).

Prices

The Government Planning Department as a rule kept track of household expenditure by sampling the prices of common commodities and by using these sample prices to construct the retail price index - an indication of the changes in the general cost of living. Since the purchase and consumption of fish was an important item for most households, price monitoring had meant that estimates of both monthly averages and annual averages had been made.

Table 8 Annual catch/performance for whaler fleet

<u>Traditional whaler</u>	
Days at sea	120
<hr/>	
<u>Catch rates</u>	
5 x 20 yds gill net 3.5" mesh	60 kgs/fishing day
3 x Hand line	30 kgs/fishing day
<hr/>	
<u>Annual catches</u>	
Sweetfish	3,600 kgs
Dart	7,200 kgs
<hr/>	
Total	10,800 kgs

Note: As a general rule both techniques are used on each fishing day, three hand lines are fished per boat

Table 9 Grant Family: Annual Sales Record (tons)

	<u>Year -3</u>		<u>Year -2</u>		<u>Year -1</u>	
	<u>Dart</u>	<u>Sweetfish</u>	<u>Dart</u>	<u>Sweetfish</u>	<u>Dart</u>	<u>Sweetfish</u>
Central market	0		0		2.3	6.0
Suburban market	2.5	4.0	2.6	4.3	1.2	2.0
Beach sales	5.6	1.6	5.7	1.7	4.0	.5
Sales to vendors	2.0	1.7	2.2	2.0	1.0	.8
Processed fish	2.5	.5	4.2	.7	3.2	.5
Crew consumption	1.3	1.0	1.4	1.1	1.3	1.1
<hr/>						
Sub-total	13.9	8.8	15.7	9.8	13.0	10.9
<hr/>						
Total	24.7		25.5		23.9	

Note: The time when this case study is set is regarded as Year 0. Hence Year -3 is 3 years ago, Year -2 is 2 years ago etc.. Tables used elsewhere in the manual will look at the future i.e. Year +1, Year +2 etc..

Generation of Information

For the last three years average retail fish prices have been recorded as shown in Table 10. For simplicity of comparison it is better that all prices refer to the weight of fresh fish originally needed to make one kilogram of product - known as the live weight equivalent. For example, to salt-dry dart, the fish is split, the guts removed and the fins trimmed. This process brings about a weight loss of about 25 per cent. As the fish is then dried, its weight then falls further, so that the final salt-dried product weighs about 45 per cent of the original fish. Thus to make one kilo of salt-dried fish requires 100/45 of fresh fish, i.e. 2.22 kgs. Smoke drying sweetfish requires a factor of 4.5, i.e. to get 1 kg, 4.5 kgs of fresh fish is needed because a much drier product results. The price per kilo, live weight equivalent, is expressed in brackets in Table 10.

By combining Tables 9 and 10 an estimate of total revenues to the business could be calculated, as is given in Table 11. This indicated a total revenue of \$13,470 for the first year, \$14,100 the second and a jump to \$17,510 for the third.

Operating Costs

Operating costs were calculated on the basis of available information as shown in Tables 12, 13, and 14. In all cases, replacement costs for capital equipment were used as a basis for estimates of annual repairs and maintenance bills, so giving a realistic estimate of current repair costs. Fishing equipment was treated as an operating cost, and annual expenditure worked out corresponding with the estimated replacement schedule of equipment.

Operating costs were estimated as \$3,376 for fishing, \$1,060 for marketing and \$221 for handling and processing. Prior to opening the central market stall, costs of marketing were significantly lower at about \$250.

For the purposes of estimating operating costs one and two years ago, the Department of Finance and the Department of Planning recommended that an inflation factor of six per cent per year be used to deflate current prices.

Wage calculation

The system for the distribution of residual income/revenues had been developed over many years. The fishing crews would gain their income from beach sales, and the regular sale of fish to the village vendors, topped up at a later stage by the sale of processed fish. Immediate cash transactions were roughly divided, after subtraction of direct operating costs (i.e. fuel and oil), two parts cash to Bob and the skippers, and one part each to the crew members. Revenues from the sale of processed fish were distributed between the fishermen (but not Frank) on an equal basis, on the principle that they were largely responsible for the processing, storage and sale of these goods.

Other revenues to the business, after first deducting direct operating costs (i.e. transport costs, ice, stall rental, fuel, salt, packaging), were again divided into ten parts and divided two to Henry, one to Bob, one split between Frank and Grandad, and the remaining six parts retained, at the Grant family's discretion, for indirect operating costs and major capital expenditure.

Table 10 Arcadia: Retail fish prices over the last three years (\$/KG)

DART	<u>Year -3</u>	<u>Year -2</u>	<u>Year -1</u>
<u>Whole</u>			
<u>Central market</u> 0.74			
<u>Suburban market</u> 0.65			
<u>Village</u> 0.40			
<u>Beach</u> 0.36			
<u>Salt/dried/pickled</u>			
<u>Central market</u>	1.27 (0.58)	1.27 (0.58)	1.27 (0.58)
<u>Suburban market</u>	1.07 (0.48)	1.07 (0.48)	1.07 (0.48)
<u>Village</u>	0.67 (0.30)	0.67 (0.30)	0.67 (0.30)
<u>SWEETFISH</u>			
<u>Whole</u>			
<u>Central market</u>	1.54	1.61	1.47
<u>Suburban market</u>	1.21	1.27	1.03
<u>Village</u>	0.84	0.87	0.94
<u>Beach</u>	0.78	0.82	0.88
<u>Smoke dried</u>			
<u>Central market</u>	2.68 (0.60)	2.68 (0.60)	2.68 (0.60)
<u>Suburban market</u>	2.35 (0.52)	2.35 (0.52)	2.35 (0.52)
<u>Village</u>	1.68 (0.38)	1.68 (0.38)	1.68 (0.38)

Note: Price per kilo, live weight equivalent is shown in brackets.

Table 11 Grant Family: Estimate of revenues to the business from sale of fish over the last three years ('000 \$)

	<u>Year -3</u>			<u>Year -2</u>		
	<u>Dart</u>	<u>Sweetfish</u>		<u>Dart</u>	<u>Sweetfish</u>	<u>Dart</u>
Central market	.00	.00	.00	.00	.00	1.85
Suburban market	1.63	6.16	1.78	5.47	.77	2.06
Village sales	.54	.95	.61	1.17	.29	.50
Beach sales	1.99	1.25	2.14	1.40	1.61	.44
Processed fish	.76	.19	1.27	.26	.96	.19
Sub-total	4.92	8.55	5.80	8.30	5.48	12.03
Total	13.47			14.10		
Average price per kilo (\$/kg)		.66		.61		.82

Notes

1. Revenues from village sales (i.e. sales made by street vendors) is based on a wholesale price equivalent to two thirds of the retail price).
2. Revenues from sale of processed fish are based on the village price only, since few sales of processed fish from the business are actually made outside the village community.

Generation of Information

Table 12 Operating costs of fishing

	\$
1. Boat 1 - 12 HP x 0.2 l/hr x 6 hrs x 132 days x 30 cents per litre	570.24
2. Boat 2 - 20 HP x 0.2 l/hr x 6 hrs x 132 days x 30 cents per litre	950.40
3. Oil and lubricants at 5 per cent of fuel costs	76.03
4. Boat and engine repairs and maintenance at 5 per cent of replacement cost	860.00
5. Net and line repairs and replacement	769.00
6. Miscellaneous equipment	150.00
	<hr/>
	3,375.67

Table 13 Operating costs of marketing

	\$
1. Transport costs - 300 days x average of 80 cents/day	240.00
2. Replacement of fish baskets - 300 x 20 cents	60.00
3. Purchase of ice - 300 days x 2 blocks/day x 90 cents/15 kg block	540.00
4. Stall rental, central market - 20 cents/day x 300 days	60.00
5. Stall rental, northern suburban market - 5 cents/day x 200 days	10.00
6. Maintenance of shore premises and market stall at \$3/week x 50 weeks	150.00
	<hr/>
	1,060.00

Table 14 Operating costs of handling and processing

	\$
1. Lamp oil at \$3/week	150.00
2. Repairs and maintenance of lights, containers, kilns etc. at 10 per cent of replacement value	15.00
3. Fuel for kilns - 2 bundles of wood per week for 20 weeks at 80 cents per bundle	32.00
4. Salt for salt-drying - 25 kgs/week for 20 weeks at 3 cents/kg	15.00
5. Packaging material - sacking and matting at 3 three times per year	9.00
	<hr/>
	221.00

On this basis, income over the past three years' trading was estimated by Ned as shown in Table 15. After the business started selling from the central market, it became quite apparent that the traditional method of paying wages was not effective, working to the benefit of Henry and to the detriment of the fishermen. Bob had been aware of this and had consequently used his discretion in distributing additional monies, through retained revenue, to the fishing crews, Frank and Drew. When shown the wage estimates by Ned, Bob was then able to say that the figures were far from realistic, and that his juggling of income had meant that the fishermen did not suffer as great a fall in income as indicated. Bob felt therefore that the fishermen's wages in the last year were fairer than indicated, and indeed that Frank's income had been about \$200 higher and the other fishermen \$150 higher each. However, he was surprised at the theoretical extent of the difference in income since the move to the central market, and the effect that this had had on the range of wages that might have been paid. He also knew that Frank was very unhappy about Henry's income compared to the fishermen's and accordingly realised that the old system was no longer satisfactory.

Depreciation

Generally speaking, the older an item of capital equipment gets, the less inherent value it has, and the sooner it will need replacing. Thus, a major item in any budget will be the replacement of worn out assets (e.g. boat/engine/gear) and the provision made for this, known as "depreciation" will form a portion of the fixed overhead costs of the business. Such provision accommodates changes and by reducing or "writing down" the book or notional value of an asset each year, the situation is avoided where a capital asset is over-valued.

A prudent company and its management would, therefore, plan its cash flow to incorporate planned capital expenditure, and would either arrange to borrow money to cover such irregular expenditure, and pay it back, with interest, with the ensuing retained profits, or it would finance such irregular expenditure from within the company, and perhaps earn interest on such "savings" up until such expenditure was made.

The main difference between these two procedures is that depreciation is a product of historical expenditure, whereas retained profits are designed to cover future expenditure. In today's world where inflation tends to cause the prices of capital goods to increase, the latter, the replacement price, is usually higher than the historical price, and therefore the more important price. Depreciation is explained more fully in Section 3.5.3.

For the Grant family, the depreciation schedule (see Table 16) was calculated in such a way as to equate with the general requirements for retention of funds to meet replacement costs. Since this business was not at the time liable to a tax on its profits, this system was quite reasonable. Depreciation in this case was therefore calculated historically, according to current replacement costs, and forward depreciation was calculated on a straight-line basis at current costs.

Generation of Information

Table 15 Grant Family: Estimate of wages (\$)

<u>Source of revenue</u>				
<u>Year -3</u>	<u>Fishing</u>	<u>Marketing</u>	<u>Total</u>	<u>%</u>
Bob	662	686	1348	19
Frank	662	343	1005	14
Henry	0	1372	1372	19
Grandad	0	343	343	5
Drew	852	0	852	12
Chris	521	0	521	7
Pat	521	0	521	7
Neil	521	0	521	7
Steve	521	0	521	7
Total	4260	2744	7004	
 <u>Year -2</u>				
Bob	762	626	1388	22
Frank	762	313	1075	14
Henry	0	1252	1252	16
Grandad	0	313	313	4
Drew	1068	0	1068	14
Chris	687	0	687	9
Pat	687	0	687	9
Neil	687	0	687	9
Steve	687	0	687	9
Total	5340	2504	7844	
 <u>Year -1</u>				
Bob	248	1247	1495	20
Frank	248	624	872	12
Henry	0	2494	2494	34
Grandad	0	624	624	8
Drew	478	0	478	6
Chris	354	0	354	5
Pat	354	0	354	5
Neil	354	0	354	5
Steve	354	0	354	5
Total	2390	4989	7379	

Note: Percentage may not sum to 100 due to rounding.

Table 16 Grant Family: Depreciation Schedule for Capital Items (\$)

Depreciation period	-3	-2	-1	0	1	2	3	4	5	6	7	8	9
Fishing Vessel 1	15	400	400	400	400	400	400	400	400	400	400	400	400
Engine 1	3	400	400	400	400	400	400	400	400	400	400	400	400
Vessel 2	15	533	533	533	533	533	533	533	533	533	533	533	533
Engine 2	3	666	666	666	666	666	666	666	666	666	666	666	666
Cars	5	30	30	30	30	30	30	30	30	30	30	30	30
Misc. equipm	3	83	83	83	83	83	83	83	83	83	83	83	83
Sub-total		2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112
Shore Lock-up Kilns	5	10	10	10	10	10	10	10	10	10	10	10	10
Insulated box	3	7	7	7	7	7	7	7	7	7	7	7	7
Lamps	5	20	20	20	20	20	20	20	20	20	20	20	20
Furnishings	5	5	5	5	5	5	5	5	5	5	5	5	5
Scales	5	2	2	2	2	2	2	2	2	2	2	2	2
Sub-total		51	51	51	51	51	51	51	51	51	51	51	51
Marketing Scales Storage boxes	5	2	2	2	2	2	2	2	2	2	2	2	2
Sub-total	2	6	6	6	6	6	6	6	6	6	6	6	6
Total		8	8	8	8	8	8	8	8	8	8	8	8

Notes

1. Analysis is undertaken at the beginning of year zero.
2. Shore, marketing equipment, cars and miscellaneous equipment are of such low value compared to the boats and engines, that in practice these costs would be met out of normal working capital.

Generation of Information

Cash flow

According to the estimate of cash flow made in Table 17, the business has benefitted greatly from the move to the central market with increased revenues far outweighing increased costs. Annual profits after depreciation are postulated to average about \$2,000 annually, taking into account required capital investment. This is about 11 per cent of revenues.

If, however, as Bob intimated to Ned, the traditional method of calculating wages had broken down since the business had moved sales operations to the central market, and that he had tended to top-up the fishermen's incomes, and left his and Henry's income at roughly the level as calculated, then there had been additional expenditure of about \$950 per year.

On this basis, the profitability of the business was seen to be less attractive although, after depreciation, it was still estimated at about \$1,050 per annum.

It should also be borne in mind that the business did not put aside money at the time since there was no formal way it could do so. As money came into the business it was generally divided between the members of the business and then spent. Money was often lent to members of the extended family and village on an "as necessary basis", and reciprocal rights were usually honoured. Goods and services provided to the business were usually on an extended credit basis repayable in cash and kind. If there was a major cash crisis or exceptional capital expenditure, then the members of the business went fishing more often and for longer hours, as well as calling in their rights to cash advances from friends and family.

This system of financing and remuneration was highly fluid, accomodating most changes in circumstance, cementing the social ties of village and family, and was relatively cheap. It becomes expensive when this communal system breaks down, and professional financiers/money-lenders take over.

Marketing strategy

As described by Bob and Henry, the marketing strategy of the business had changed markedly as a result of the move to the central market. Whereas before, production had been geared to serving part of the requirements of the local community, both through the local village and the northern suburban market, movement to the central market had meant that the target market had shifted from the semi-subsistence suburban and outlying village community to the richer population found in the centre of town, or those well-off enough to shop there on a regular basis.

The species mix caught and distributed to the different sales outlets had been largely determined by easily observed market forces. The cash-poor populations showed a purchasing preference for the dart, although the sweetfish was considered a tastier fish. In consequence the dart dominated beach and village sales. On the other hand, the slightly better off suburban population meant that more sweetfish could be sold at the suburban market, even though retail prices were substantially higher than those for dart.

Table 17 Grant Family: Estimated cash flow (\$)

Capital costs	Years	-3	-2	-1	0	1	2	3	4	5	6	7	8	9
Vessel 1		800				1,200				6,000				
Engine 1										1,200				
Vessel 2											6,000			
Engine 2											1,200			
Miscellaneous equipment														
Store premises														
Market equipment														
Sub-total		800	1,500	3,777	2,410	2,410	2,410	2,410	2,410	2,410	2,410	2,410	2,410	2,410
OPERATING COSTS														
Fishing		3,054	3,279	3,776	3,776	3,776	3,776	3,776	3,776	3,776	3,776	3,776	3,776	3,776
Marketing		250	1,000	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060
Processing		197	218	221	221	221	221	221	221	221	221	221	221	221
Sub-total		3,541	4,487	5,057	5,057	5,057	5,057	5,057	5,057	5,057	5,057	5,057	5,057	5,057
REVENUES														
Central market														
Suburban market														
Village sales														
Beach sales														
Processed fish														
Sub-total		13,470	14,100	17,510	18,564	18,564	18,564	18,564	18,564	18,564	18,564	18,564	18,564	18,564
NETS														
Fishing		4,260	5,340	2,390	2,390	2,390	2,390	2,390	2,390	2,390	2,390	2,390	2,390	2,390
Marketing		2,744	2,504	4,989	4,989	4,989	4,989	4,989	4,989	4,989	4,989	4,989	4,989	4,989
Sub-total		7,004	7,844	7,579	7,579	7,579	7,579	7,579	7,579	7,579	7,579	7,579	7,579	7,579
Total costs		11,345	13,631	12,813	12,383	13,356	14,536	12,383	11,056	19,736	14,363	20,136	12,536	12,536
Total revenues		13,470	14,100	17,510	18,564	18,564	18,564	18,564	18,564	18,564	18,564	18,564	18,564	18,564
BALANCE		2,125	269	4,697	6,181	5,228	4,028	6,181	7,508	(1,172)	4,181	(1,572)	6,028	4,981
DEPRECIATION		2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171
PROFIT		(46)	(1,902)	2,526	4,010	3,075	1,857	4,010	5,357	(3,343)	2,010	(3,743)	3,857	1,810
QH. PROFIT		(46)	(1,948)	578	4,568	7,663	9,520	13,520	18,867	15,524	17,534	13,791	17,648	19,458

Notes

1. Negative amounts shown in brackets.
2. Analysis is undertaken at the end of year zero, beginning of year one.
3. Replacement of vessels could be extended beyond theoretical economic life at much lower cost.

Generation of Information

Processing was seen as a poor alternative to immediate sale, only being practical when it was felt that even at marginally lower than market prices the daily catch exceeded plausible sales levels. Processed fish was then mostly consumed by the fishermen's families, since retail prices did not adequately cover the sales effort involved and also such consumption thus allowed more valuable fresh fish, which would otherwise have been consumed by the family, to be sold at market, reaping a higher benefit to the business.

As might be expected, sweetfish as a premium priced fish was only processed as a final alternative, every effort being made to direct it onto the fresh market.

At the time of the change it was recognised by all concerned that increased costs of ice, stall rental and transport meant that higher gross revenues had to be made and that a higher profit margin had to be charged. The business' conscious decision to preferentially sell sweetfish in the central market therefore blended well with the sound economics of the move (not totally appreciated by Bob and Henry), and with the recognised preference of the affluent for sweetfish; the dart, was perceived, undeservedly, to be a "poor man's food". A similar label was also forced onto processed fish, causing most fishing businesses to dispose of such product in the immediate locality of production, rather than in the towns.

The change in sales strategy brought on by the move to the central market caused a major change in production strategy and fishing effort, with noticeably more time being spent fishing for sweetfish, and less for dart. Catches remained much the same in volume as in earlier years, but the potential value of the catch increased appreciably.

Both Bob and Henry appreciated that the move had benefitted the business, but were concerned that little effort had been made to look clearly and objectively at the changes to costs and earnings, product mix and the further development opportunity that this move might or might not have brought about.

Meeting agreement on the figure work

Bob was most impressed with Ned's efforts, and yet it took Ned several meetings with Bob, Frank and Henry to convince them that the figure work he had prepared was actually a realistic picture of their business. In particular Ned had to define and describe much of the jargon and techniques that he had employed to do the work.

They were in general agreement at the end of these meetings, but Bob did not feel at all happy as to whether or not the figures showed that he was doing good business. Ned explained that the situation looked good, but that it was fairly obvious that the keeping of regular records would benefit control of the business, and that, more importantly, analysis of his trading results would assist him greatly in planning for the future.

Ned then explained that the next step in the process of applying for a loan was to assess the effects that a third boat would have on production, product mix, marketing, costs, revenues and profitability. Ned knew as a result of work undertaken by his department that the new boat would cost more to buy and to operate, but that this would be outweighed by substantially greater productivity. However, it was uncertain whether or not Bob's business could accommodate a third boat,

could handle the increase in fish production and could sell the fish profitably.

A description of the demonstration vessel is given in Table 18 and a description of the supplied equipment in Table 19. The operating parameters of the boat, based on earlier work by the Fisheries Department are given in Tables 20 and 21.

Table 18 Description of demonstration vessel

		<u>Original Costs</u> (\$)	<u>Current Value</u> (\$)	<u>Current Costs</u> (\$)	<u>Economic Life</u> (years)
L.O.A.	28 ft	12,000	12,000	12,000	15
Beam	5 ft				
Marine-ply, hard chine construction, flat work area, fore-cabin					
Engine	20 HP inboard	2,500	2,500	2,500	3

Table 19 Equipment supplied with demonstration vessel

	<u>Purchase price</u> (\$)	<u>Expected life</u> (years)
<u>Recurrent items</u>		
30 lengths of gill net		
3 x 3.5"	306.00	1
3 x 4.5"	360.00	1
Materials for mounting gill nets	90.00	1
Deepwater snapper lines, hooks, sinkers, traces, crimps etc.	250.00	1
1 set of long lines	350.00	1
<u>Capital items</u>		
2 sets of oars	150.00	5
2 anchor ropes and two anchors	300.00	3
1 auxilliary 5 HP petrol outboard engine	800.00	5
Safety equipment & miscellaneous materials	300.00	3
	2,906.00	

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Table 20 Catch/performance for new demonstration vessel

Days at sea	150
6 x 20 yds gill net 3.5 & 4.5" mesh	78 kgs/fishing day
3 handlines	45 kgs/fishing day
Long line	20 kgs/fishing day

Annual catches

Sweetfish	6,750 kgs
Dart	14,700 kgs

As a general rule all three fishing techniques are used on each fishing day.

Table 21 Estimated operating costs of demonstration vessel

	\$
1. Fuel - 20 HP x 0.2 l/hr x 6 hrs x 150 x 25 c/l	900.00
2. Oil and lubricants at 5 per cent of fuel costs	45.00
3. Hull repairs and maintenance at 5 per cent of cost	600.00
4. Engine repair and maintenance at 3 per cent of cost	75.00
5. Net and line replacement	1,356.00
6. Miscellaneous equipment	390.00

	3,366.00

According to the figures, acquisition of the new boat would almost double the amount of fish handled by the Grant family. The initial capital requirement would be \$1,450 (10 per cent deposit) with annual repayments of about \$1,000. Annual operating costs were estimated at \$3,366. This compared with annual operating costs of the two existing boats and gear of \$3,400, with annual retentions against their replacement costs of about \$2,100. Historic capital expenditure on boats and engines had been about \$9,300 and future requirements (over 9 years) were \$21,600.

From the figures it was difficult to see to what extent the new boat would immediately benefit the business, in comparison to the existing vessel operations. It was clear, however, that handling almost double the amount of fish could not be done under the existing system of distribution and marketing. Instead, additional capital equipment would have to be acquired and the merchandising operations improved at all levels. A number of marketing strategies could be considered based on:

- * all fish being retailed by the business itself,
- * passing on all or some of the fish to retailers outside the business, i.e. operating as a wholesale organisation.

Assessing future marketing strategies

Ned's first question to Bob and Henry concerned the extent which they felt the existing structure and organisation of the business could handle almost double the available quantity of fish; either at current prices or at lower prices.

Henry immediately answered that he felt it would be very difficult under either situation, if not impossible, to double sales of fish but that such a situation was quite contrary to his attitudes to selling and that he felt that a simple solution to the problem could be found. Under the existing structure of the business, Henry felt that more dart and sweetfish could be sold at the suburban markets and the central market out of season, but only marginally more in season at the same price. If greater reliance were to be placed on reinstatement in the suburban market, more fish could be sold there, but it would require an additional salesman.

Additionally, if greater effort were made to secure a custom-built stall in the central covered market, then Henry believed that sales could be increased by fifty to one hundred per cent, and that, to some extent, prices could also be increased. Various other possibilities existed, and Ned made a note of these; as in Figure 7.

The increases in sales that would result from these activities could all be done without reducing the general price of product, but while accommodating a reduction in margins as a result of diverting product into wholesale channels. The value of such service could be established by a close analysis of cost, earnings and margins.

Figure 7 Grant Family: Possible future changes to the marketing system.

Further changes to the organisation could involve:

- * direct supply to hotels, restaurants and institutions
- * supply to grocery shops in town
- * supply to other stallholders in the northern suburban and central markets
- * supply to the southern suburban market
- * increased production of processed fish
- * production of high value processed fish
- * street vending directly to suburban householders
- * increase of product range by further processing - gutting, knobbing, filleting etc.
- * further targetting of fishing effort on the sweetfish, in preference to the dart
- * targetting of fishing effort on larger sized dart

After a lengthy general discussion on the subject, it was agreed that with some effort, the additional catches resulting from purchase of a third boat could be sold as profitably as at present, but that this would require some additional expenditure and some improvement in the management control of the business, principally in terms of written accounting. Further, it was voiced again that the whole area of revenue distribution should be appraised with the view of establishing a more equitable return to the fishermen for their efforts. On the basis of available price data, and an estimate of the distribution of the third vessel's catch, it was calculated that the increased revenue to the business from operation of the additional boat would amount to \$15,100 (see Table 22).

The repercussions of a new marketing strategy

Since the expanded marketing operation would necessitate at least two sales assistants, increases in ice, boxes, stall rentals and transport, (although there would be some economies of scale), it was felt that the overall situation would leave them in profit, but only just. This was not considered a sufficient advantage to the business, and that, unless the level of revenues could be increased or the costs of marketing reduced, the idea should be shelved.

Ned, however, disagreed, and said that if they would work towards increasing the proportion of fish retailed by the business against that wholesaled, their profitability would increase considerably.

Table 22 Estimated revenues from production of third boat

	Dart	Sweetfish
<u>Sales Quantity</u>		'000 kgs
Central, retail	2.0	1.0
wholesale	3.7	1.0
Suburban, retail	1.5	2.0
wholesale	.5	1.0
Village, wholesale	1.0	.3
Beach	2.0	1.0
Processed	4.0	.5
Crew consumption	-	-
<u>Prices</u>		\$/kg
Central, retail	0.85	1.56
wholesale	0.64	1.17
Suburban, retail	0.68	1.09
wholesale	0.51	0.82
Village, wholesale	0.47	0.99
Beach	0.42	0.93
Processed	0.32	0.40
<u>Revenues</u>		'000 \$
Central, retail	1.70	1.56
wholesale	2.37	1.17
Suburban, retail	1.02	2.18
wholesale	0.26	0.82
Village, wholesale	0.47	0.30
Beach	0.84	0.93
Processed	1.28	0.20
	7.94	7.16
Total Revenues		-----
		15.10

Generation of Information

A ten per cent increase in direct sales through the central market would reap a further \$432, and from the suburban market \$80 a year. Each kilo of processed dart alternatively sold at the suburban market would reap \$0.36, and similarly each kilo of sweetfish \$0.69. If no fish was wholesaled at the suburban market but, together with the fish designated for processing, sold through a new stall in the southern suburban market, the business would gain a further \$2,135 per year.

It was accepted that, by gearing the marketing strategy to the profitability of each product, overall profit could be maximised. If consideration was still given to the needs of the local community and its goodwill, then overall potential profits would probably be reduced in order to meet these constraints (given as secondary objectives of the business) but also ensure the business' long term future. A process of optimisation would be expected to show that the acquisition of a third boat would in fact be highly beneficial to the business and considerably strengthen their position in the market place.

Limited Liability Company

Ned felt strongly that the present structure of the Grant business i.e. a loose association, was inappropriate for its complexity, size and turnover. He urged, therefore, the family to consider the various alternatives, which he put as either a partnership or a limited liability company. Even if a third boat was not acquired, Ned felt that the business was substantial enough for such a development and he favoured the formation of a limited company. Ned explained to Bob, Frank and Henry the various problems in just having an association, with it being more difficult to gain finance, no formal business ownership and possible difficulties should one of them wish to leave the business or, even worse, die. While admitting a private company also had its disadvantages (for example more burdensome government regulations, a higher order required for book-keeping and financial control, and activities limited by charter and various laws), these were outweighed by the advantages. Ned highlighted the facts that the family's liability would be limited to a fixed amount, ownership would be readily transferable, it would be easier to secure loans, and the company would have the ability to delegate authority to employed managers. With their new awareness of financial matters in particular, and mindful of difficulties caused by the recent development of the central market sales outlet, the family found themselves in agreement with their adviser. Accordingly, they asked Ned to arrange appointments with the relevant departments, and also to provide the required documentation.

The Draft Feasibility Study

On Ned's advice they now left discussion of all the various factors such as marketing strategy and concentrated on the loan application for the new vessel. Everyone felt a third boat would benefit the business, and their figures tended to support this. They believed that the expected increase revenues would be greater than increased costs and, therefore, the business would experience greater profitability. As a final check, they prepared an estimated cash flow (see Table 23) associated with a third boat. Finding this to be favourable, with the operation of a third boat postulated to contribute substantially towards the cost of expanded marketing operations, they decided to draft a formal feasibility study for presentation to the development bank.

Table 23 Grant Family: Estimated cash flow associated with a third boat(\$)

	0	1	2	3	4	5	6	7	8	9	10
CAPITAL COSTS											
Deposit	3481										
Loan repayment at 7 % interest p.a.		3376	3208	3013	2800	1430	1363	1296	1229	1162	1094
Miscellaneous equipment						600		950		600	1027
OPERATING COSTS											
Fishing	3481	3376	3208	3013	4530	1363	2346	1229	4262	1094	1027
	3366	3366	3366	3366							
					3366	3366	3366	3366	3366	3366	3366
WAGES											
4 crew, 5 shares of \$800 each		4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
REVENUES		15100	15100	15100	15100	15100	15100	15100	15100	15100	15100
TOTAL COSTS	3481	10742	10574	10379	118%	8729	9712	8595	11628	9460	8393
BALANCE	(3481)	4358	4526	4721	5304	6471	5398	6505	3472	5640	6707
Q.M. BALANCE	(3481)	677	5403	10124	13428	19899	25287	31792	35264	40904	47611

Generation of Information

This feasibility study is shown in Annex 1. Read through it now and note how all the information derived in this case study has been used to present the case. Some of the figurework in the case study is repeated, but note how we have derived the revenue forecast, the Grant family balance sheet, the Grant family profit and loss account and the cash flow. Information contained in Sections 2 and 3 will show you how all this can be done.

2. SETTING UP A FISH BUSINESS

2.1. INTRODUCTION

Many enterprises start without a great deal of thought concerning the form which is most suited to the situation or the objectives which define the real reasons why the enterprise is established. This is because they evolve from a simple activity into a more complex full time business. This may be a perfectly good way to start, but at some stage, if not at the beginning, some thought must be given to your position in the industry and the structure and objectives of the enterprise so as to prevent growth getting out of hand. There is no future in being busy fools. The process need not be very complicated nor very time-consuming, but determination of the structure and objectives of the enterprise is important as it lays down the framework and conditions within which the performance of the enterprise can be judged.

This section comprises four chapters. Chapter 2.2. deals with a general overview of the fishing industry and its different sectors. As will be appreciated the complexity of the fishing industry often means that even those who are closely involved with it cannot easily see beyond the parts with which they come into immediate contact.

Chapter 2.3. looks at the different types of enterprise. Although there appear to be many different kinds, in fishery situations there are only four basic options from which to choose. The essential differences between these options are described together with the conditions for which each structural type is most suited. The relevant options are:

- * sole trader
- * association
- * limited liability company
- * primary co-operative

As explained in Chapter 2.4., every business is in existence for a different set of reasons. These may be separated into the long-term reasons (objectives) and how these might be achieved (strategies), and the short term reasons (goals) and how these might be reached (plans). The way in which objectives and goals are established and strategies and plans determined fall under the heading of planning.

Some reasons for running a business are more important than others, and some reasons actually conflict with others. It is very important that these matters be clearly sorted out so that they do not adversely affect the business, but rather make planning and the day to day operation of the business easier. Discussion of these points is also given in this chapter.

The feasibility study is a form of special planning used at the time of setting up a business and when taking important steps in the growth of the business. Chapter 2.5. outlines those factors that influence whether or not a proposed development of the business is likely to be successful.

2.2. OVERVIEW OF THE FISH INDUSTRY

Sub-sectors of the fishing industry

Those involved in the fish industry should clearly identify where they stand in the industry, the activities they propose to undertake and the type of organisation which is most appropriate to this.

The fishing industry can be divided into five sectors; catching/harvesting, handling and storage, processing and packing, distribution and transport, wholesaling and retailing.

From the time when fish are caught until they are eaten, there are a number of stages which can involve different people carrying out the various functions necessary to prepare and distribute the fish for the consumer. Each component of an industry can be seen as quite distinct from the next so that the whole system is a series of linked operations. The operation of all the linked components may be carried out by one individual or group, or alternatively one individual or group may undertake only one component of the system.

Catching and harvesting include all the different fishing techniques, from the most simple hook and line fishing to the most sophisticated trawling. There is sea fishing in near and distant waters, as well as in inland lakes and rivers. In addition fish are harvested from fish farms.

Handling and storage represents the way fish is treated, covering unloading from boats to beaches, quays etc., transfer to and from storage, and storage itself. It also covers how the fish is handled during distribution and selling operations.

Processing and packing may vary from simple icing of fresh fish through traditional methods of drying and smoking, to more sophisticated filleting and freezing techniques. Other forms of processing include canning, pickling and fermenting. After processing, fish may be packed into appropriate containers such as baskets, boxes or cardboard cartons ready for the next stage.

Distribution involves the logistics of moving fish through the sub-sectors of the industry to the consumer, and covers transport, and, if necessary, intermediate storage, of the fish between the processing site and the retail outlet. This may involve the simple sale and transport of fish from the point of landing directly to the local market. On the other hand, if distances to larger markets are greater, distribution networks may involve a chill chain (i.e. provision of ice and chill storage along the way). A chain of cold stores will be required for frozen fish.

Wholesaling involves the intermediate buying and selling of fish and fish products between traders. Retailing is the buying of fish from a catcher or wholesaler and selling it on directly to the consumer. Retailing may take place on the beach, in the market place, in specialist fish shops, supermarkets etc.. The hotel and restaurant trade can be seen as a special form of retailing in which fish is prepared ready for sale and consumption on the premises. This can be termed the catering sector.

If you look back at our case study, each of the businesses introduced deals with one or several of these aspects to some extent. This is summarised in Example 3.

Example 3

The main activities undertaken by each of the businesses included in the case study

	<u>catching/ harvesting</u>	<u>handling/ storage</u>	<u>processing/ packing</u>	<u>distribution/ transport</u>	<u>wholesaling/ retailing</u>
1. Jack Fine, sole trader	Y	N	N	N	N
2. Dennis Barr, sole trader	Y	N	N	N	N
3. The Grant Family, informal group	Y	Y	N	Y	Y
4. The Aranay Fishermen's Co-operative	Y	N	N	N	Y
5. Fergus Slater, sole trader	N	N	N	N	Y
6. Don Marsh, registered limited company	N	N	Y	N	N

Notes: * None of the businesses specialise in handling and storage of fish (except perhaps the Grant Family) principally because this side of the industry is as yet poorly developed.

* Likewise, while many of the businesses undertake some processing activity, they could not be termed a specialisation of the business, except in the case of Don Marsh.

* Distribution and transportation is only effectively carried out by the Grant Family in our examples, since they actually move fish to one or more distant markets, even though they hire transport to do it.

* Each business has to dispose of its products in one way or another, but only in the cases of the Grant Family, the Co-operative and Fergus Slater would it be realistic to say that they have a wholesale or retail part of the business.

Factors that characterise an industry

The structure and health of any fishing industry depends on many factors external to your business - it is important to identify such factors and the extent to which they affect your business. Figure 8 will help you.

Some of these factors can change rapidly, while others are more stable. The relationship between these factors characterises the fishing industry in your country.

Figure 8 Examples of some factors that characterise a fishing industry

The structure of the fishing industry in any country depends upon many things, for example;

- * the fish resources available
- * the types of fishing methods
- * the number and scale of fishing operations
- * seasonal and climatic variations which affect both catching and consumption
- * processing methods available
- * product preferences of the population
- * number and scale of fish processors
- * distances to different markets and road conditions
- * sizes of markets for different fish products, including export
- * availability of ice, chill storage facilities etc.
- * population size
- * government fishery policies
- * type of landing facilities
- * level of skills within the different parts of the industry
- * availability of finance

From the foregoing you should be able to identify what part of the fishing industry you are particularly involved with and how your activities fit into the overall system. In addition you should be able to identify which external factors most influence the success of your business.

Types of business that make up the industry

A number of business types can usually be identified in the industry:- sole traders, partnerships, co-operatives, large and small companies and state organisations.

In order to carry out the various activities within the industry, one or more of the following types of business will have been formed.

- * small sole traders
- * partnerships and associations

- * small private companies
- * co-operatives
- * larger sole traders
- * large private companies
- * state owned fish marketing organisations

These organisational types are described more fully in Chapter 2.3. From these descriptions you will be able to identify what type of business you are running and to determine whether it is appropriate for the job you are trying to do within the industry. You will also be able to identify the types of organisation of other enterprises you know. Example 4 illustrates the organisational types of the various businesses included in our case study.

Example 4 The case study businesses as organisational types

- * Jack Fine, semi-subsistence canoe fisherman, sole trader
- * Dennis Parr, artisanal dinghy fisherman, employer, sole trader
- * The Grant Family, artisanal integrated fishing and retailing business, informal association
- * The Arcady Fishermen's Co-operative, artisanal fishermen's primary co-operative
- * Fergus Slater, small retailer, employer, sole trader
- * Don Marsh, small processor, employer, registered limited liability company

Support services to the industry

The industry has specific service requirements especially for boat and engine supply and repair, net and gear supply, ice, refrigeration engineers, etc.. Businesses that provide such services form an integral part of the industry.

In addition to these main fish-related enterprises, there is a separate sector of support enterprises. For instance catching and harvesting will need boat builders and repairers, engine mechanics, nets and gear manufacturers and suppliers of spare parts. The processing and packing sector will need mechanics for maintenance of ice making machines, suppliers of packing materials, etc.. Figure 9 outlines the various requirements in more detail, how many are available in your own locality?

Large businesses often have their own service departments, but smaller businesses will have much less in the way of service requirements, if any. A business can cover one or more of the sectors and service activities.

<u>Service Requirements for Different Sub-Sectors</u>	
<u>CATCHING/HARVESTING</u>	<u>DISTRIBUTION</u>
Boat builders	Marketing information
Engine supplies	Transport maintenance
Mechanics	Ice
Net and gear supplies	Refrigeration engineers for chill/cold chain
Net and gear repair	
Fuel supplies	
Bait supplies	
Ice	<u>RETAILING</u>
Provisions	Ice
<u>PROCESSING AND PACKING</u>	Refrigeration maintenance
Ice	Stall/Shop maintenance
Smoking fuel	
Processing supplies	
Refrigeration plant	<u>GENERAL</u>
Refrigeration engineers	Finance/credit
Packaging supplies	Legal advice
	Technical advice (Fisheries Department)
	Insurance

Horizontal and vertical integration

Growth can be achieved not only by increasing the scale of a particular operation, but also by integrating upstream and downstream activities into the business - vertical integration - or by absorbing related activities - horizontal integration.

An example of expansion in a vertical direction would be if a fisherman felt he wanted to add value to his catch by setting up a processing facility. Horizontal integration might arise where a fish retailer wanted to expand his outlets by taking on or setting up other retailing activities.

In setting up a fish business, one of the first decisions to be made is "which sector(s) to work in"? Once a company is established, and there is opportunity to expand, then there are three courses of action open to the managers/proprietors.

- * Expand activities within the same sector
- * Take on operations in a different sector above or below in the chain
- * Establish a service department, for example, to reduce overheads and to do outside work for others in the same sector, if appropriate

The picture that emerges is of a complex, interrelated industry, each part of which is dependent on the other. Sometimes it is not possible for the individual operator to see where he fits into the overall picture, but it is important to appreciate the different sectors involved, for this can give ideas for the expansion of the business.

2.3. TYPES AND STRUCTURE OF ENTERPRISES

2.3.1. General

This chapter focuses on fishing or fish trading enterprises as organisations. The structures associated with the different types of enterprise are described together with the advantages and disadvantages of each and guidance on which type to choose.

Any activity which involves the catching, processing or trading of fish or fish products on a regular basis in exchange for cash is considered an enterprise. Enterprises may vary considerably in size from the very small sole trader to the large public company. Whilst increases in size may add complexity, the basic characteristics of the different types of enterprises remain the same.

Why Have A Structure?

All enterprises have a structure, even though this may not be very clear. However, the clearer the structure the greater the likelihood of an efficient and healthy enterprise. A structure is essential to order the activities of the enterprise and provide a recognisable grading and division of responsibilities. If everyone in the enterprise, both owners and employees, understands his place and obligations within the structure, organisational matters will not interfere with the day to day running and development of the business.

Business and the Law

In all countries, various rules have been established that affect the way businesses are formed, organised and operated. Generally these rules are established within the laws of each particular country. These laws establish what is and is not considered a business, what kind of financial accounts must be kept by each type of business and what is legally recognised as a sole trader, a limited company, a co-operative, etc.. In this respect, every business falls into one legal definition or another - it has a legal identity. Do you know which category your business, or proposed business, falls into?

In many developing countries the law requires very little of small businesses, often not taxing profits or income, and not requiring that written accounts be kept e.g. a part-time canoe fisherman may be considered in law a self-employed sole trader, and his income should, by law, be liable to income tax; it is very unusual that such a man is taxed.

It should not be forgotten, however, that all trading activities are governed by national laws, no matter how limited the activities undertaken. For the small business it is common that the law is not enforced - this should not be confused with the relevant law not existing.

By contrast a small business that has registered with the government i.e. a registered business, will have to comply with certain requirements such as keeping written accounts, having them audited each year, and paying a tax on the profits the business makes each year; it is unusual that such a registered business can avoid undertaking these activities.

Organisational types

Although laws and regulations may sometimes be resented as government interference in business, they have been established for the benefit and protection of both businesses and individuals.

From a practical point of view, the recognition of too many business structures would create difficulties in government administration, so most countries limit the number of structures that are legally recognised. Clearly, nature and size of business will usually dictate the threshold for recognition.

In general "company law" serves to simplify the range of organisations and to lay down the minimum statutory requirements for each type of organisation. For registered organisations this relates to registration of the trading name and nature of the business, together with annual returns of audited accounts. There may be specific business legislation covering safety, wages and hours worked, unions etc. and there would be a number of government agencies involved with the implementation and monitoring of such legislation. The rules covering self-employment, sole trading, and informal groups/associations are generally much less demanding, or even absent altogether.

Laws and regulations differ from country to country, so if you are wanting to set up or expand your fishing or fish trading business, you should find out what different enterprise types are allowed in your country and what laws and regulations control them. Assistance in this can usually be obtained from the Dept. of Fisheries, the Co-operatives Dept. or the Ministry of Trade and Industry etc.. Let us look at the example of two of the companies in the case study.

Example 5: The Co-op. and Seahorse Co. Ltd. - registered businesses.

With respect to our case study businesses, only the Co-op., and Don Marsh's businesses are registered.

The Arcady Fishermen's Co-operative Society is registered with the Registrar for Co-operatives as a legitimate co-operative, structured according to the appropriate co-operative rules and regulations. It is a primary co-operative, i.e. its members take a raw material and transform it into a saleable product (a secondary co-operative takes the output of another business and transforms it into a product of higher value). The Arcady Fishermen's Co-operative is notionally a member of the National Co-operative Federation, but has as yet had little to do with this apex organisation (which could provide a variety of services to the Co-op. ranging from help with accountancy, to central purchasing, to central sales. The co-op is subject to co-operative business law as interpreted in the law courts and by the Registrar for Co-operatives.

Don Marsh's Seahorse Company Limited was set up and registered with the Registrar of Companies. Its areas of trade and methods of trade are described in its Articles of Association which form a binding legal document constituting the company. This document is lodged with the Registrar of Companies and forms part of the Register of Companies. In Don's case he sought the assistance of a company of accountants, Cecil Sykes and Partners, who drew up the documents. The registered office of the company is that of the firm of accountants and a copy of the company's registration document is displayed there. As far as the ownership of the company is concerned, the share capital is 1000 one dollar shares of which five were issued to Don's father and five to Don. Since the establishment of the company, the other 990 shares have been issued to Don. The share capital is thus said to be fully paid up.

Range of organisational types

Each enterprise has its own characteristics depending on the nature of the business and the aims of its owners/members. Generally, however, enterprises fall into three sectors:

- * the private sector
- * the co-operative sector
- * the state/public sector

Types of suitable organisations

Within these different sectors a number of suitable organisational types can be found usually defined by the size and complexity of the business. This is shown in Figure 10.

Figure 10 Types of organisation to be found within the private, co-operative and state business sectors.

<u>Size</u>	<u>Private</u>	<u>Co-operative</u>	<u>State</u>
Small	(a) Sole Trader (b) Association/ Partnership	Community Enterprise	Fish Landing Station
Small Medium	(a) Private Company (Limited liability) (b) Sole Trader	Primary Co-operative	Fisheries Complex
Medium to Large	Public Company (Limited Liability)	(a) Secondary Co-ops, (b) Apex Organisation	Parastatal Fish Marketing Organisation

Twelve main types of fisheries enterprise are identified in the Figure. However, as this manual concentrates on small scale fisheries, we will only concentrate on five types:

- * Sole trader (small)
- * Group/association/partnership of traders/fishermen/processors
- * Community enterprise, often under traditional leadership
- * Private registered company
- * Primary co-operative and pre-co-operative

Sole Trader

In practice there will be some overlap between these types. Often, one leads to another as the enterprise develops. There may be considerable similarity between a group or association of fishermen and a community enterprise or a pre-co-operative. A sole trader may join up with others to form a group which then can develop into a private company or a co-operative depending upon situation and needs. A community enterprise might also register as a company or take the co-operative pathway. There is no fixed path for a developing enterprise to follow. It is up to you to judge the advantages or disadvantages of the various forms to suit your requirements.

2.3.2. Sole Trader

The sole trader (this is a technical term, and refers to anyone in business for themselves, regardless of type of business - it covers fishermen, drivers, processors, salesmen, etc.) is probably the commonest form of enterprise found in small scale fisheries and often forms the backbone of the fishing industry. Most of the larger enterprises have developed from one or more sole traders. The sole trader enterprise may range in size and complexity from the one-man owned and operated business to larger businesses with a number of employees but nevertheless owned and usually managed by one man. The owner's family may be closely involved with the business and it may not be clear if it is a sole trader business or a family group.

The distinguishing feature of the sole trader enterprise is that one man is in control, takes the decisions and retains the profits. But you should note that if you own and operate the business alone, you cannot be effective at everything, e.g. catching fish and selling it, and thus considerable time and energy may be wasted.

The business is heavily dependent upon the skill and experience of the sole trader. If you become ill or die, the business may falter without your direction and energy. The sole trader enterprise is thus highly vulnerable if anything happens out of the normal. You may overcome this problem by hiring employees but then you would have also to spend some time in man management as well as the business. Even with employees, if you own all the assets and take all the profits (after payment of wages etc.) the business would still be a sole trader enterprise. Figure 11 highlights the advantages and disadvantages of the sole trader enterprise, while two Examples (6 and 7) look at sole traders mentioned in the case study.

Example 6 Jack, Dennis and Fergus - sole traders

Jack Fine, the subsistence canoe fisherman described in the introduction to the Case Study, is an example of a sole trader. In his case, he runs his business by sometimes selling fish and at other times providing fish to friends, relatives and neighbours outside his immediate family, for which he might expect to get some benefit in return, although not necessarily at the same time. Should he become ill and unable to work, his business will cease to exist.

Dennis is also a sole trader, but, in contrast, is in a position to employ two crewmen to help him in his fishing operations. He is a full-time fisherman in the artisanal fishery - most of the produce of his efforts goes for sale. He has considerably greater assets than Jack

has, but his business would probably continue should Dennis himself become incapacitated, since he would in most probability employ one of the existing crewmen, or a third person, to run the business on his behalf. In this case, it would still be a sole-trader business.

Fergus Slater, the fishmonger, also runs a sole trader enterprise. He buys and sells fish and fish products on his own behalf and seeks to cover his overheads and maintain his working capital requirements from the difference between his purchase price and his sales price.

Example 7 Dennis Parr - sole trader

Dennis Parr's business activities can be considered fairly typical of a sole trader. He is his own boss and is responsible for all the financial aspects of his business. He does not work alone, but has found it necessary and mutually beneficial to employ two helpers according to an agreed work and pay schedule.

He has brought to the business his own boat, some working capital and the wherewithal to secure a small loan from the bank to buy an outboard engine. He has put his resources and his livelihood at risk, and has done so to secure independence of action to the largest extent possible, and the freedom to benefit in financial and non-material ways from the success (or failure) of his business according to the efforts he has put in.

His crew, Jerry and Nick, are quite capable of taking the boat to sea themselves, but could not be expected to run the business for any period of time in the absence of Dennis.

To expand this business, Dennis could borrow money from within his family (a limited resource), join forces with another fisherman or interested party, or seek additional funds from the bank. If he seeks to share the business, he is no longer a sole trader and loses some of his freedom of decision. If he goes to the bank for money, he must provide some form of security to support the loan - his house, a mortgage, land etc. - otherwise the bank would be very reluctant to lend any money.

2.3.3. Groups, associations, partnerships, and community enterprises

The grouping of fishermen or traders into associations or partnerships, is the next level of complexity. A number of fishermen or fish merchants might agree to act together in their mutual interest, usually in order to deal with the activities of their businesses more efficiently and to increase the possibilities for greater profit. Resources may be pooled to produce a greater capital base to buy equipment or to have greater buying or selling power in the market place while some communities may set up their own community enterprises which are another form of fishermen's association.

There are several ways in which such a group can be established from the simple verbal agreement through to a more formal partnership with a written agreement. From a legal point of view, the informal fishermen's group, perhaps consisting of two brothers or a group of friends within one community, is similar to the sole trader enterprise.

Figure 11 Advantages and disadvantages of the sole trader enterprise

Advantages of the sole trader

- * The organisation is usually informal with few legal obligations; little or no government approval is required and formation costs are lower than with other types.
- * Profits need not be shared with anyone.
- * There are no co-owners or partners to consult; the sole trader holds complete decision-making power and thus control.
- * The sole trader is able to respond quickly to business needs.
- * The sole trader is relatively free from government control and special taxation.

Disadvantages of the sole trader

- * The sole trader has unlimited liability and is responsible for all his debts. If debts exceed the total investment in the business, liability would extend to the forfeiture of all assets, including house and possessions.
- * There is normally less capital available to the business than in other types of organisation.
- * The sole trader often has difficulty in obtaining long term financing. An investor is showing confidence in the sole trader as an individual as much as in the business potential as a whole. The business is dependent upon the skills of the owner for credibility and continuity and if the owner becomes ill or dies prematurely the normal operations of the business can be severely damaged.

Figure 12 Advantages and disadvantages of groups, associations and partnerships.

The advantages of the group, association or partnership.

- * Legal formalities and expenses are few compared with those required in setting up a company.
- * Partners are motivated to apply their best abilities because they directly share the profits.
- * In a group or partnership it is often possible to obtain more development and working capital and a better range of skills than in a sole trader enterprise.
- * A group or partnership may be more flexible in the decision making process than a company.
- * The partnership is relatively free from government control and special taxes.

Disadvantages of the group, association or partnership

- * There must be unlimited liability for at least one partner.
- * The partnership ends when any partner dies or wants to end the partnership. The business can continue to operate on the basis of right of survivorship and possible creation of a new partnership (not necessarily applicable to groups or associations).
- * It is more difficult for a group, association or partnership to obtain large sums of capital for long term financing than for a company, but easier than for a sole trader.
- * The partners are agents of the business and their costs are binding on the other partners as well as on the business (less so for members of a group or association).
- * There may be a difficulty in selling a partnership interest; the buying out of a partner may be difficult unless it is specifically covered for in the written agreement (not applicable to group or association). (Refer to Section 1 for a description of the Grant family as an informal association).

Private registered company

For the more formal partnership arrangement, it is essential that a structure with written agreements be set up. This provides guidelines for action in the event of disagreements and minimises the risks of one member taking advantage of the others. Some countries may have a special partnership law whilst in others partnerships are considered as part of company law. In general the law leaves it up to the partners to draw up their own agreement.

Associations and partnerships, like sole traders, have unlimited liability. At least one of the members/partners must accept this, whilst the others might accept some form of limited liability. Usually liability for debts etc. would be shared between all partners, and in the event of bankruptcy all those with unlimited liability would have their assets liquidated. Any profits which accrue would be shared as previously agreed, perhaps dependent upon the amount of money invested or time spent by each partner. Figure 12 points out the advantages and disadvantages of groups, associations and partnerships.

2.3.4. Private registered company

The main difference between sole traders, associations and partnerships, and companies relates to some form of limitation of liability. This means that in the case of the registered company the individual owner's financial liability is limited usually to the total of the face value of his shares in the enterprise. The company has a recognised legal identity distinct from the individuals who own it. This is designed to further control and protect the financial interests of the owners and to provide a formal relationship between an enterprise and its employees and clients, supported in law. (See Example 5 for brief details of the Seahorse Company Ltd.). There are various advantages and disadvantages associated with formation of a private company, and these are detailed in Figure 13.

2.3.5. Co-operatives, pre-co-operatives and primary societies

The co-operative approach is different from that of the true private sector. It allows each sole trader to continue operating on his own account, within a structure which provides services such as marketing, equipment supplies, boat and engine repairs etc., in order that individual productivity can be increased. The co-operative adds the format of a jointly owned and operated enterprise to complement the primary business of the sole traders e.g. fishing or processing. The co-operative should not compete or interfere with your main business.

In addition, the primary society often forms part of a co-operative network. This can provide support and additional services such as export marketing, processing, training, loans from the co-operative banks and often access to government as well as co-operative development schemes.

It is important that all members should share a common interest - for instance they might all be fish processors. So membership criteria must be carefully defined incorporating certain restrictions e.g. boat owners within a ten miles radius of the community. If there are too many members with varied interests, the strain upon the society may be too great.

Figure 13 Advantages and disadvantages of private companies

Advantages of private companies

- * The shareholder/owner's liability is limited to a fixed amount, usually the amount of the investment.
- * Ownership is readily transferable from one person to another.
- * The company has a separate legal existence.
- * There is a high degree of stability and permanence of existence.
- * It is relatively easy to secure capital either from financial institutions or from individual investors; by using company assets or guarantees as collateral/security and/or by allowing investors to hold shares.
- * Owners can delegate authority to professional managers, who are then responsible to them.
- * With greater resources to call on, the company can afford to employ specialists.

Disadvantages of private companies

- * Activities are limited by charter and various laws.
- * There may be extensive government regulations to be observed and burdensome local, state and national returns to be made.
- * More money is needed to form a company than a partnership.
- * Taxes to be paid to various government agencies may be large.
- * Book-keeping and financial control will require to be of a higher order.

Organisational structures

The primary society is owned by all the members each of whom purchases a single share. This gives them the right to one vote in the running of the society and makes up "share capital". In addition members will pay an annual subscription. Some societies will also have a savings fund, allowing members to invest in the society and receive interest. The factors to be taken into account in evaluating the wisdom of establishing a co-op are summarised in Figure 14, while the circumstances of the Arcady Co-op are indicated below in Example 8.

Example 8 The Arcady Fishermen's Co-operative Society

This Co-operative was formed on the basis of the existing level of co-operation amongst its potential members. At the instigation of the local fisheries officer, the informal group moved to form a registered co-operative.

The nine members have each taken shares in the business; one voting share each, and others in proportion to their individual investment in the business. In this way, voting shares cost one dollar each and investment shares one for one hundred dollars. So far the Co-operative has \$1,209 in share capital, and the Arcadia Co-operative Federation has offered to loan the co-operative up to \$1,200 against request at an interest rate of four per cent above bank rate (currently 12 per cent) i.e. 16 per cent per year. The fishermen have jointly and individually taken out loans with the Development Bank, to buy larger boats and engines, against personal security.

The assets of the co-operative have been used to buy fuel and fishing equipment at slightly reduced rates, and to offer very short-term loans to individual fishermen. As of now, payment for co-operative stocks and repayments of short-term loans is falling behind, putting the future of the co-operative at risk.

2.3.6. Choosing the most suitable type of organisational structure

It is important to choose the right organisational type for your business at the outset. Most fishermen will be starting from the position of sole trader or as part of an informal group. In either case there are really four or five development options open to them. The various routes for development of the most appropriate organisation can be illustrated in the following paragraphs.

The first question you must answer is:

"Do I want to expand my business so that it will be more efficient and more profitable?"

If the answer is NO, you are happy with the way your business is now. However, this manual will still benefit you by all the various bits of advice given. If it is YES, then you have two options;

1. To continue as a sole trader but to improve your business methods on your own, using your own resources

Figure 14 Advantages and disadvantages of co-operatives

Advantages of co-operatives

The co-op is usually open to all sharing a common interest and the same locality, regardless of wealth or position, although many successful co-ops restrict membership by placing stricter criteria on selection of applicants for membership.

The members' liability is restricted to the shareholding.

The co-op does not interfere with the operation of members' own businesses, but aims to provide a service to assist those busir

- * The co-op is democratically controlled by its members.
- * It has a separate legal existence, and will continue so long as it is supported by the members.
- * A co-op has access to greater resources of capital through institutional finance, and is often favoured by the Government in terms of concessionary grants, loans, taxes, etc.
- * The co-op network provides support facilities, such as professional advice, training etc., facilities that would be difficult for a small business to organise with its own resources.
- * Members' support for their society is all important, and in a good co-operative can provide a real social force for development.

Disadvantages of co-operatives

- * Since members are often independent businessmen, organisation is often difficult, and democratic control may be hard to enforce.
- * Due to a co-op's democratic nature, the decision-making process can be cumbersome and slow.
- * Fixed assets purchased from reserves through funding from external lending agencies is not capitalized against members shares. Therefore, a co-op may be wealthy in fixed assets but a member's interest is only limited to his shares and, if he resigns for any reason, he cannot take any of the assets with him. With a private company the par value of a share changes according to company profitability.
- * There are extensive government regulations covering co-ops and sometimes excessive government interference in their management and operation.
- * Fisheries co-ops have not had a good record in some parts of the world and this may inhibit the setting up of a new co-op.
- * Because of misunderstandings of the co-op idea, and the nature of democratic control, they are more open to abuse and financial malpractice than other organisations.
- * Members must trust their society if it is to work for them; breakdown in trust (due to malpractice etc.) quickly leads to loss of support.
- * Good management is essential, but good managers are rare and expensive, often beyond the means of the smaller co-operative.

Organisational structures

2. To join up with others in an informal group which widens the scope for action by combining resources. This may lead to a more formal type of organisation

You have to consider which option will serve your intentions better.

Forming an informal group

If you decide that it would be advantageous to form an informal group, there are a number of questions. Perhaps the most fundamental is:

"Are there any other fishermen/traders nearby with whom I could work to our mutual advantage? Do I want to work with them?"

If the answer is NO, you are back in the position of a sole trader who only has two options, either to continue as such or to set up a private company.

If the answer is YES, and the other sole traders are agreeable, the first step is to form a simple informal group or association in which there is a limited agreement to work together and to cooperate to the mutual benefit of group members. Alternatively you can move rapidly on to the three more formal types of organisation - partnership, private registered company or co-operative. It is possible to change from one such form to another, but this is not usual nor recommended because of the different styles of operation associated with each form.

The sole trader must consider carefully the advantages and disadvantages of sharing ownership and decision-making with others. He should answer the following questions:

- * Do I trust the others?
- * Do I need more resources for the development of my business than I have by myself?
- * Will the benefits of working together outweigh the extra time and effort needed to set up and operate the group/company?
- * Do I feel happy about sharing some control of the business with others and/or sharing the profits, even though these may be increased?
- * Will I accept the risk of losses which may be incurred as a result of someone else's decision in the business?

If the answer is NO to any of these questions, then either the potential partners are wrong or it is not appropriate to consider a joint venture of this nature.

An individual trading as a private company

If you decide to continue as a sole trader, you may at a later date wish to form your own private company. The reasons for doing this are usually concerned with limiting your liability and raising finance. The management concepts aimed at improving your business will be similar whether you continue to operate as a sole trader or form your own registered company. You also retain an option to go into partnership or form a company with other fishermen or fish merchants at a later date.

If you are considering forming a company owned only by yourself, you should answer the following questions;

- * Is the limitation of liability important for me?
- * Is the legal continuity of the enterprise after my death important?
- * Does the scale of operation or its development warrant the expense involved in forming a company and the additional effort involved in accounting, administration and bureaucracy?
- * Will the formation of a company attract more finance than I can raise at present, either in the form of equity or as a long term loan? Do I really need that finance?
- * Am I willing to accept the loss of some flexibility in operation?

If the answers to these are YES, then the formation of a registered company is a definite option for you.

If NO, then you would be better to remain as a sole trader and try to improve the business in other ways. To remain as a sole trader does not mean that you will not be successful, neither does the formation of a company guarantee success.

Setting up an enterprise as a group

If you want to form a group, the choices are:- an informal group, a partnership, a private company and a co-operative. There are a number of factors which will influence your decision, as noted in Figure 15.

Summary

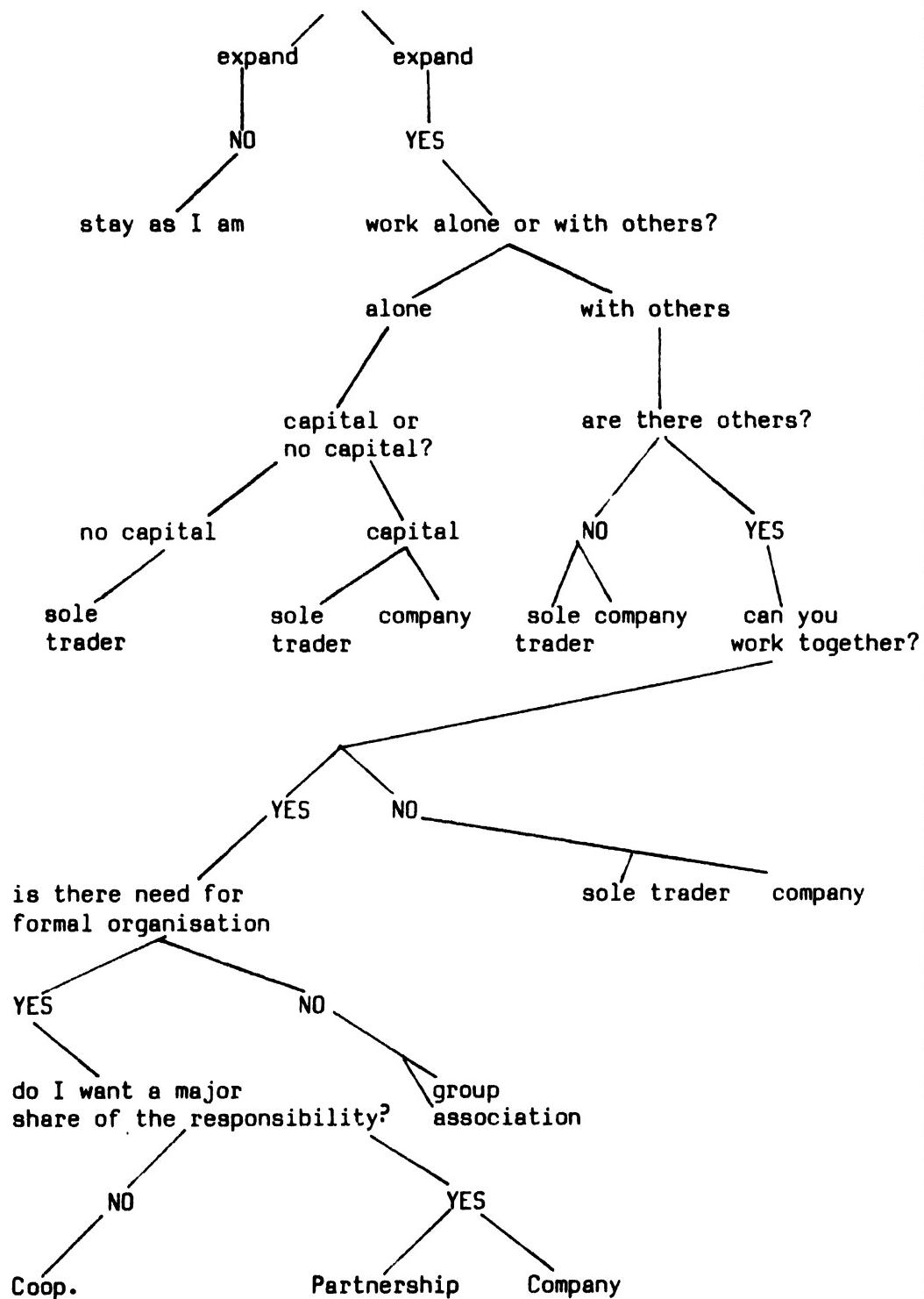
Each of the highlighted organisation types has a variety of attributes, some of which will be common to a number of types while others are peculiar to an individual type. A comparison of various attributes is given in Table 24. Assessment of these will indicate the organisation types you may wish to consider, and consideration of the various options may be facilitated by reference to the decision tree shown in Figure 16.

Organisational structures

Figure 15 Factors to be taken into consideration when forming a group enterprise.

- * Flexibility: If flexibility of operation is important to group members, the informal association offers the best option.
- * Numbers in group: If numbers are large i.e. more than 10, a co-op might be most appropriate. If numbers are small a partnership or registered company might be better.
- * Members: If the members of the group have similar interests, do similar work and come from the same locality, an informal association or a co-op is most appropriate. If there are any major differences in type of person wanting to be a member it is better to set up a partnership with a written agreement or a private company. For instance if you wanted to set up an enterprise with both fishermen and fish traders, a partnership or private company would be better.
- * Resources of members: If all members have similar resources to put into the business, a partnership would be most appropriate. If the members have widely differing levels of resources to put into the business they can either go for a co-op or a private company. If it is a co-op the share capital is the same for all and set at a level affordable by all members. If it is a private company, the share capital will vary depending on how much each member wishes to invest.
- * Control: If democratic control by all members is required, a partnership or a co-op is most suitable, because the share or stake in the business is more commonly the same for all. A private company is usually controlled by those who have the largest numbers of shares in the company; i.e. it is the amount of money which controls not the people. Each structure can accommodate democratic control; the above distinction is, however, drawn from practice, not theory.
- * Management: When there are too many members or shareholders, directors will have to be appointed and possibly managers employed. In partnerships and informal associations this is rare, because partners usually take an active part in the management of the business. Management can be delegated in both co-ops and private companies.
- * Continuity: If continuity of the enterprise is important, a co-op or private company should be formed.
- * Liability: If you want to limit your liability, a co-op or private company will do this. Partnerships or associations have no liability limits.
- * Capital resources and loans: If you want access to greater capital resources, any form of enterprise will provide for this up to the limit of the resources committed to the enterprise by the individual members. If you need more than this for the development of the business, loans are easier to gain for more formal enterprises such as partnerships, co-ops and private companies. Co-ops and private companies may have greater access to government loan schemes.
- * Profits: To increase your profits directly, a partnership or private company is more appropriate than a co-op.
- * Control of your own business: If you wish to continue your own business as a sole trader, but make it more efficient, a co-op provides cheaper supplies and services and creates more favourable trading conditions. An informal association may do the same, but in a less structured way.
- * Other fisheries businesses: The structure of the fishing industry in your country will influence your decision. The presence or absence of an entrepreneurial tradition or a co-op network will be a factor, while the history of setting up fisheries organisations may provide some ideas on types which have or have not worked. Look at government support for different types, since a variety of grants and credit schemes may favour some types of organisation more than others.

Figure 16 Deciding on the most suitable form of enterprise structure



Organisational structures

Table 24 Comparison of attributes of the five organisation types

	Sole Trader	Association	Partnership	Private Company	Co-operative
1. Size	small-medium one	small-medium 1-20 similar	small-medium less than 10 can be different equal	medium 1 - 20 can own many shares one vote/share separate	medium any number similar one share/person one share/one vote separate
2. Numbers of members/owners	-	none	not applicable	one	one
3. Diversity of membership	none	none	none	will continue	will continue
4. Share capital	not applicable	equal	none	to value of shares	to value of shares
5. Voting rights of members	none	none	can continue	greater	greater
6. Legal identity of enterprise	none	none	none	more	more
7. Continuity of enterprise	none	none	none	best	best
8. Limitation of liability	none	limited	some pooling	more	more
9. Capital resources	limited	limited	some	some	some
10. Access to loans/grants	none	good	good	more	more
11. Democratic control	few	few	some	some	some
12. Legal obligations	great	great	some	more	more
13. Flexibility	little	little	some	more	more
14. Formality	little	little	some	more	more
15. Setting up costs	little	little	in proportion to investment	more	more
16. Share of profits	no share	equal	equal	equal	yes
17. Government control	little	little	some	yes/no	yes
18. Members continue as sole traders	yes	yes	no	no	yes
19. Part of a larger nationwide network	no	no	no	no	yes
20. Written agreement/constitution	none	none	yes	yes	yes

2.4. OBJECTIVES AND GOALS, STRATEGIES AND PLANS

2.4.1. Objectives

As described in the introduction to this section, every business has objectives and goals, and determines strategies and plans to reach them. Few businesses, however, ever call them by these names, or put their thoughts on paper - most consider this only necessary when a business reaches a certain size. Nevertheless, with a little thought, each of you can identify objectives and goals appropriate to your own situations, and how you might go about meeting them. Dennis Parr has thought about this, and a summary is contained in the example below.

Example 9 Dennis Parr: Objectives and Goals

Dennis Parr, skipper/owner of a small open dinghy with outboard has established as his objective, to "earn sufficient income to look after the cash requirements of himself and his family, to expand the business so that he can take his son into the business, and to upgrade the type of vessel, equipment and gear used in line with the health of the business and the need to catch more fish, more efficiently". This gives a comprehensive overview of the business and its long-term plans (5 years or more).

His strategy, based on his own experience and that of his crew and family, is to expand the business very slowly, to keep costs down through good maintenance and fishing close to home, to concentrate on catching large volumes of relatively low value fish, for sale on the beach to consumers and traders as necessary.

His goals are to be able to place \$200 in the savings bank, by the end of the year, towards an inboard engine, to have replaced half of his fishing equipment before the next fishing season, to obtain a slightly higher price for his fish and to catch slightly more fish per trip than in the previous season.

The plans to achieve these goals are to increase the number and duration of fishing trips made over the coming season, to negotiate higher prices by offering regularity of supply to one or more traders, to seek the assistance of the local fisheries officer about increasing his catch rate, and to start to keep written records of his business performance.

Clearly there is no end to the amount of detail that can be gone into at each stage, but the above example is more than adequate as a first step. Nevertheless we shall look in more detail at different types of objectives and how they affect the way a business is run.

Objectives serve three main purposes:

- * They enable you to be clear about what you are doing and why you are doing it.
- * They help you to distinguish those activities which are fundamental to your business from those which are not, to identify those objectives which conflict with other objectives, and to rank the objectives according to priority.

Objectives

- * They act as a measure for the performance of your business. From time to time you can assess your success in achieving your objectives.

Figure 17 shows the value of identifying objectives.

Figure 17 Some examples of the value of identifying objectives

- * Objectives are important because they enable you to be clear about your business activities.
- * Objectives help to identify the most important activities to concentrate on.
- * Objectives serve as a measure of performance.
- * Primary objectives are simple statements of intent which characterise the business. Profit, survival and intention to work in the fish industry are the commonest examples.
- * Sole traders, partnerships and companies will have more profit orientated objectives. Associations and co-operatives may have service and social objectives.
- * Ranking of objectives is useful because it helps to identify those most important to the enterprise, especially in a crisis.
- * The fundamental objective is the statement in a single sentence, and in simple language, of the most important primary and secondary objectives of the enterprise.
- * Some objectives conflict, and when this occurs to the detriment of the business the least important objectives may have to be set aside.
- * Conflicts can also arise when different sets of people have different objectives for an organisation e.g. government officials and co-operative members.
- * Secondary objectives define and qualify the primary objectives and help to determine business policy.
- * Secondary objectives require regular review to take into account changes in the business environment.

Secondary objectives should also be ranked.

Three levels of objectives can be clearly identified - primary, secondary and fundamental objectives.

A. Primary Objectives

Essentially these should be simple statements of intent of why the enterprise exists and should be appropriate throughout the life of the enterprise.

Secondary Objectives

A useful definition of secondary objectives is that they:

- * provide the direction for implementation of the primary objectives, define the types of activity to be undertaken, and the ways of achieving primary objectives.
- * introduce constraints and limits to those activities which may compromise or conflict with the primary objectives.

Fundamental Objective.

While such concepts as profit and survival may be basic to the establishment of an enterprise, there are many ways in which these concepts may be employed. To clarify the situation, and to conform with the statement that "the objectives of the business should be stated clearly enough to give the management a strong indication of how it should manage the business" a single statement of objective should be formulated. This can be called the Fundamental Objective and should incorporate the primary objectives most applicable to the enterprise, and to some extent the more important secondary objectives, as described below. The Fundamental Objective should consist of only one sentence, long though it may be, and it should be written in common everyday language, and not use any jargon.

The fundamental objective of the business should be a single statement of the 'philosophy' of the business incorporating the most important primary and secondary objectives expressed in one sentence.

2.4.2. Primary Objectives

Primary objectives are usually very simple statements of intent about the business. Such statements may be so general that they appear to be rather superfluous: closer examination, however, shows that there is a great deal of point to them. This is most clearly borne out in the construction of the fundamental objective.

The first primary objective of the organisations we are considering here might be:

"To operate within the fish industry."

Such a statement allows the organisation to engage in any of the different parts of the chain from catching to retailing or any of the services to the fish industry, but clearly shows up conflicting activities which have nothing to do with the industry. If such activities are taking away time and money from the primary activities, they should be dropped (or the objectives changed to accomodate them).

Two principles are fundamental to the vast majority of businesses and are implied when we refer to a business as a "going concern". These are: to stay in business and to earn money. Primary objectives however develop these principles; for example take Dennis Parr and also the co-operative.

Objectives

- * They act as a measure for the performance of your business. From time to time you can assess your success in achieving your objectives.

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Figure 17 Some examples of the value of identifying objectives

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- * Secondary objectives define and qualify the primary objectives and help to determine business policy.
- * Secondary objectives require regular review to take into account changes in the business environment.
- * Secondary objectives should also be ranked.

Three levels of objectives can be clearly identified - primary, secondary and fundamental objectives.

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Essentially these should be simple statements of intent of why the enterprise exists and should be appropriate throughout the life of the enterprise.

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A useful definition of secondary objectives is that they:

- * provide the direction for implementation of the primary objectives, define the types of activity to be undertaken, and the ways of achieving primary objectives.
- * introduce constraints and limits to those activities which may compromise or conflict with the primary objectives.

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Two principles are fundamental to the vast majority of businesses and are implied when we refer to a business as a "going concern". These are: to stay in business and to earn money. Primary objectives however develop these principles; for example take Dennis Parr and also the co-operative.

Primary Objectives

Example 10 Primary objectives place these principles in context.

- * Dennis Parr is a sole trader wishing to work exclusively in the fishing and first hand trading sector of the industry to earn sufficient income to keep his family at much the same standard of living as at present, to send his children to secondary school, and to have sufficient funds to set his son up in the fishing industry once his schooling has stopped. His objective is clearly not to become a millionaire but to earn a moderate, regular income sufficient to maintain a certain standard and quality of life, within the sector of which he has most experience.
- * The Arcady Fishermen's Co-operative is set up to provide a service to its members who operate as part owners and crew. Its primary objective is to earn sufficient money from activities such as marketing, provision of supplies etc. to enable it to remain in business. If it makes a large profit from these activities, it is probable that its members' businesses are losing out in some way; it is not keeping to the objective of earning just sufficient money for its needs. If it engages in an activity such as marketing of vegetables for nearby farmers, because it has surplus storage space, it is also not keeping to its objectives (although under certain circumstances that might be a reasonable move).

Below in Figure 18 are listed some of the primary objectives most often found in enterprises throughout the range of types we are considering. You will be able to select those which are most appropriate to you and your organisation and to add some more of your own.

Figure 18 Common primary objectives of small to medium sized enterprises

- * To survive/stay in business
- * To earn sufficient money to stay in business
- * To provide sufficient income for owners and employees
- * To make a profit
- * To make as large a profit as possible
- * To increase throughput/sales
- * To provide facilities for owners/members
- * To provide services for owners/members
- * To improve the technical and business ability of members
- * To provide funds for community development
- * To improve or establish the status of the proprietors in the community

2.4.3. Special Types of Primary Objectives

Profit

Every organisation has to earn money in the form of sales revenues, taxes, levies, or dues and most need a surplus of income over expenditure (profit) in order to survive. The simplest forms of co-operative and state organisation can, in theory, operate on a breakeven basis, but on a practical level this invariably requires at least a small trading surplus.

If an enterprise, co-operative or company does not have a surplus it will not grow. Profitability tends to support growth. There are, however, instances where an organisation's shortfall in income is made up by government subsidy. Nevertheless governments, shareholders and members of co-operatives are more satisfied if the organisation is in surplus rather than deficit.

The term "profit" is used to describe a trading surplus where income is greater than expenditure. Whether this surplus is called "profit", "cash share-out" or "bonus" is a matter of choice of words and maybe company policy.

The objective of making a profit, or even as large a profit as possible, does not dictate how you make it - that may be defined in the secondary objectives. You do not necessarily have to make a profit on every activity. Some activities may make a loss but act to promote another activity which does make a profit. The objective means that the overall business makes a profit.

The differences between making a profit and making as large a profit as possible will affect the way in which business is conducted. The latter objective may make a very hard selling organisation without much regard for its employees. In the long run this may conflict with the objective of survival, for employee and customer goodwill is essential to the continuation of a business.

Social/Welfare Objectives

Some organisations, especially community and state, may have social primary objectives. A community organisation might be established in order to provide funds for the development of the community e.g. road constructions, water supplies etc.. In this case profit will still be necessary but the life of the organisation i.e. survival, may be geared towards the particular development. Later a second set of objectives may develop once the first ones have been fulfilled.

Co-operatives may also take on other social primary objectives but these are generally ranked lower than providing services to members.

State organisations often have a social objective to encourage fish protein consumption in the poorest sections of the population or to encourage distribution to less accessible areas. Another frequent objective is to provide a service to fishermen by buying surplus fish in an attempt to reduce wastage and maintain income.

Secondary Objectives

Conflicting Objectives

Business objectives must be defined in as clear and comprehensive a form as possible. However, it is generally true that the simpler the objective the easier it is to follow. Balancing comprehensiveness and simplicity shows up the types of conflict that can arise between objectives. These conflicts must be dealt with sooner rather than later, either by placing priorities upon the objectives (e.g. ranking them) or by defining a workable compromise.

Common conflicts arise when a business is set up to satisfy both profit oriented and service or social objectives. Selling fish at a high price, so that the poorer section of the community cannot afford to buy any, may meet profit objectives, but may also produce unnecessary hardship. On the other hand, selling fish at a price at or below cost, i.e. a price that the poorer sections of the community can afford, will rapidly result in losses and the business closing, if operated without subsidy. The objectives of the business should be stated clearly enough to give the management a strong indication of how it should manage the business.

Subsistence Objectives

The principal objective of many small-scale fishermen is to provide some cash income for themselves and their dependents on a periodic but continuing basis. This relatively simple objective is very different from the objective of profit. It is related to the survival objective at a personal level rather than an enterprise level. Surviving in a subsistence economy and producing almost all immediate living requirements from their own resources, the cash requirements of these fishermen are moderate and periodic. All that is needed is a surplus over short-term operating costs, an objective not often found in more developed economies.

Because the fishing activities (or cash earning fishing activities) are only part-time, capital expenditure and depreciation are not usually accounted for, since when replacements or repairs are required the community makes a special effort to raise the cash on a once-off basis. Therefore, in accounting terms, the operation of the business according to the primary objective will almost certainly mean that the enterprise is permanently unprofitable.

Free labour and heavy community subsidies are traditional components of this type of enterprise. Operation of such an enterprise does not conform to the same principles as for most other businesses described here, but this does not mean that it is unsuccessful or inappropriate.

Do not automatically assume that the values of a particular culture or a particular way of doing things are better or worse than those of others. Western ways need not supersede those traditional in your country. Be ready to accommodate or stick to any system that meets its objectives.

2.4.4. Secondary Objectives

Secondary objectives qualify the primary objectives and are more subject to change as the business develops. In fact, they should be revised at regular intervals. Secondary objectives determine the nature, size and

type of organisation, as well as generating company policy and philosophy. Once secondary objectives are established, the board or management has little more than operational leeway in fulfilling the primary objective(s) of the enterprise and thus the secondary objectives largely determine long-term business strategy. The secondary objectives of the case study character, Jack Fine, are highlighted in Example 11.

Example 11 Jack Fine - the canoe fisherman

The primary objective of Jack Fine, the small village canoe fisherman, is to earn sufficient income from his work to meet the cash obligations to his family and community. To qualify this he has the following secondary objectives:

- * fishing activities must not interfere with his obligation to tend the family garden
- * fishing activities must not compromise his attendance at village meetings
- * he must still supply fish to members of his immediate and extended family, to his neighbours and for village celebrations on a non-cash basis, either as part of his social obligations or against reciprocal services
- * through the saving of surplus cash and the development of reciprocal favours he must secure the replacement of his existing boat

Ranking of Secondary Objectives

It is easy to see that such a list of qualifications to the primary objective can go on and on. Nevertheless, it is important to recognise that some secondary objectives are more significant than others and that some ranking of objectives is called for. If, for example, twenty secondary objectives have been identified, the five most important objectives should be ranked individually, followed by convenient grouping of other objectives. Thus, in terms of decision-making during the operation of the enterprise, the more important secondary objectives hold greater sway. Take the ranking shown in Example 12 which would help the day-to-day business management of the Seahorse Company.

As can be seen, just putting such qualifications down on paper gives considerable food for thought. If one point is written down, does another point automatically follow? Is this qualification more important in the owner's eyes than this other point? This process vastly improves and facilitates decision-making and management in operating the enterprise, not only when setting up, but also throughout the life of the business. Regular review of these secondary objectives and their ranking will accommodate changes in the business, the business environment and the wishes of the principals whether they be proprietors of a limited company, or members of a co-operative.

Example 12 Ranking objectives; the Seahorse Company

In the Seahorse Company Ltd, the primary objective is to work within the fishing industry to secure the maximum long term return on capital invested in the company, i.e. to make profits for the owner of the company, Don Marsh. Secondary objectives for the company are:

- * to provide long term, remunerative, employment for the principal share-holder
- * to build on the existing professional skills of the principal share-holder in the fishing sector
- * to secure the share-holding base of the current principal over the long term
- * to seek grant and subsidy finance, equipment and services to develop the business rather than increase the loan capital of the company
- * in the short to medium term seek to sell direct to end users
- * in the medium to long term seek to increase the added value component of the fish (i.e. increased processing)
- * to secure a return on invested capital above that available from banks and other financial institutions taking into account the risks involved in participating in the fish processing sector of the fishing industry
- * to seek to improve the business and social standing of the principal.

2.4.5. Business Strategy

Having drawn up, in some form or another, the objectives of the business, both primary and secondary, defining the various ways in which the company can be run, the management of the business has only a few basic options with respect to development strategy. The secondary objectives have brought this about, and it is particularly with these in mind that a business strategy (long-term) should be drawn up. Such a strategy should be of a broad nature only with a time-span in excess of a year, and more like five years. The business strategy of the Arcady Fishermen's Co-operative is shown in Example 13.

Example 13 Business strategy for the Arcady Fishermen's Co-operative Society

The Fundamental Objective of the Co-op. may be summarised as:-

To represent the business aims of its members in facilitating economies of scale with respect to the purchase and supply of material inputs to fishing operations and with respect to fish marketing, and to centralise and ease capital development and disbursement using share, savings and loan sources.

On the basis of this, and in view of some criticism of the Co-operative's management by the Fisheries Administration, the Business Strategy for the Society is to:-

strengthen and consolidate the administrative structure of the business through reviewing its written accounting procedures, reviewing its policies towards issue and repayment of loans through the co-operative, review of its purchasing and pricing policy towards supplies to the fishing operations, and its fish handling and selling operations.

Specifically,

- * to establish a fixed format for recording and reporting the Co-operative's accounts.
- * to send Sam, the skipper of one of the boats who currently seconds as Treasurer of the Co-op., on a short course at the Arcady Technical College.
- * to review management procedures, with respect to what Geoff, the current manager, can and cannot decide on without recourse to a decision from the management committee of the Co-op.
- * to establish whether or not, in view of slow repayments of outstanding Co-operative loans, the Co-operative can actually afford to continue to give out loans.
- * to review how the co-operative can make further savings on bulk purchases of fishing equipment etc. and what level of profit/handling fee the Co-operative should retain to increase its own finances.
- * to decide how it can improve its fish marketing activities to maximise benefits to the Co-operative and its members.

2.4.6. Operational Goals

Operational goals are specific targets through which it is intended to achieve the primary and secondary objectives and conform to the business strategy. If primary objectives usually last throughout the life of the enterprise and secondary objectives are revised from time to time, operational goals usually have a strict time element such as "by the end of the year" or "next month". (see Figure 19).

Operational Goals

Operational goals include the establishment of such factors as budgetary requirements, sales and production targets, rate of company expansion, increase in staff numbers etc.. They define the way in which secondary objectives are achieved and also provide the optimum limits for the secondary objectives. It is not a good thing to overshoot operational goals for this may put a strain on other parts of the enterprise. In a similar way, under-achieving the goal is probably indicative of wasted effort or setting too high a goal. The business strategy of the Arcady Co-op will be facilitated by definition of the operating goals, as shown in Example 14.

Figure 19 Characteristics of operational goals

- * Operational goals are specific targets which show the way to achieve secondary and primary objectives.
- * Operational goals usually have a strict time limit and require regular review.
- * Operational goals can be set for most factors that the businessman can influence, e.g. sales targets, staff levels, wages etc..
- * Operational goals should not become fixed in the mind as the only way to achieve the secondary objectives; conditions change and judgement must be used to decide when goals become inappropriate and due for revision.
- * As organisations get larger, each section will have its own set of primary and secondary objectives and operational goals which fit in with the overall objectives of the organisation.

2.4.7. Planning

Planning is the name given to the general activity of setting and meeting the operational goals of the business. Plans have to have some sort of time limit, being relatively short-term by nature, although in some cases projections for up to five years are made.

Planning involves the use of readily available information to qualify and quantify the goals which must be achieved to meet the objectives. Much of the information comes from records on the past performance of the enterprise. The actual achievements during the past time period (month/year) are compared with the goals set. Depending on the results, you can revise the goals and objectives of the enterprise for the next time period. When you have more complete information and good performance records, planning can become a very accurate tool by which your enterprise's objectives can be met. Nevertheless it is essential to see planning as a dynamic management tool, and not to stick doggedly to an outdated and inappropriate plan.

Example 14 - Operating goals of the Arcady Fishermen's Co-operative Society

Based on the Business Strategy presented above for the Arcady Fishermen's Co-op., and as a necessary input to the formation of the Business Strategy, the Society has set the following operational goals for the coming year.

- * Sam is to liaise with the Small Business Adviser and the Co-operative Officer in order to finalise a format for recording and reporting the trading activities of the Co-op.; this to be done within the next three months and reported to the Management Committee at its planned meeting in the first week of April.
- * Sam is to attend evening lessons in accounting at the Technical College from February to May.
- * Graham, the appointed manager of the Society, is to discuss management procedures, commitment to the Society and the demarcation between the Society and the personal business interests of the members, so that he can report to the Management Committee and the members how he thinks management of the Co-operative can be improved, and where individual and group interests may conflict. This report should be ready by the March meeting of the Committee.
- * at an open meeting to be held during the first half of the coming year, sooner rather than later, the members must decide whether or not the Co-op should continue to offer loans to its members and what sanctions the group is prepared to impose for slow or non-repayment of outstanding loans.
- * at the same meeting the members should decide on purchasing and sales policy with respect to equipment handled by the Co-op and how it could improve its fish marketing activities.
- * the Co-op should make representation to the Co-operative Federation to in turn represent them to the Government in obtaining a discount on fuel tariffs.

Although planning is concerned with the future it is invariably based on the past. The degree to which novel factors are brought into planning varies with the complexity of the organisation. For the sole trader the main concerns are;

- * the degree of control over price and price movement (will prices go up, down or remain stable)
- * the market situation (whether people will buy more or less next year, or next week)
- * the catch situation (whether stocks are rising or falling)

An unambitious sole trader who simply wishes to maintain his real income can plan almost entirely on an historical basis. He can take the previous year's catch, sales and price figures and make minor adjustments to set his target income and expenditure for the current year. The figures which are set for weekly sales and expenditure are used as the budget. Care should, however, be taken to accommodate changed circumstances such as expansion/contraction of the industry and increased/decreased competition.

Planning

The real danger in historically based planning and budgeting is the difficulty in making the right adjustments. Costs may have increased by 10 per cent in the past year, but this may not hold true for the next year. Suppliers should be asked for their opinions. Catch rates do vary enormously from year to year and information should be sought from the local extension services or ministry of fisheries on the impact of cycles or forecast changes in fish production.

The Planning Cycle

Figure 20 shows operational goals and how the planning cycle is used to revise these. The planning cycle is a process of:

- * Collecting information on (a) past performance
(b) outside factors;
- * Comparing past performance with operational goals set;
- * Analysing any differences between goals and performance;
- * Predicting future performance in the light of this information on inside and outside factors;
- * Revising operational goals for the next time period;

There are three basic reasons why operational goals may not be achieved. Either:-

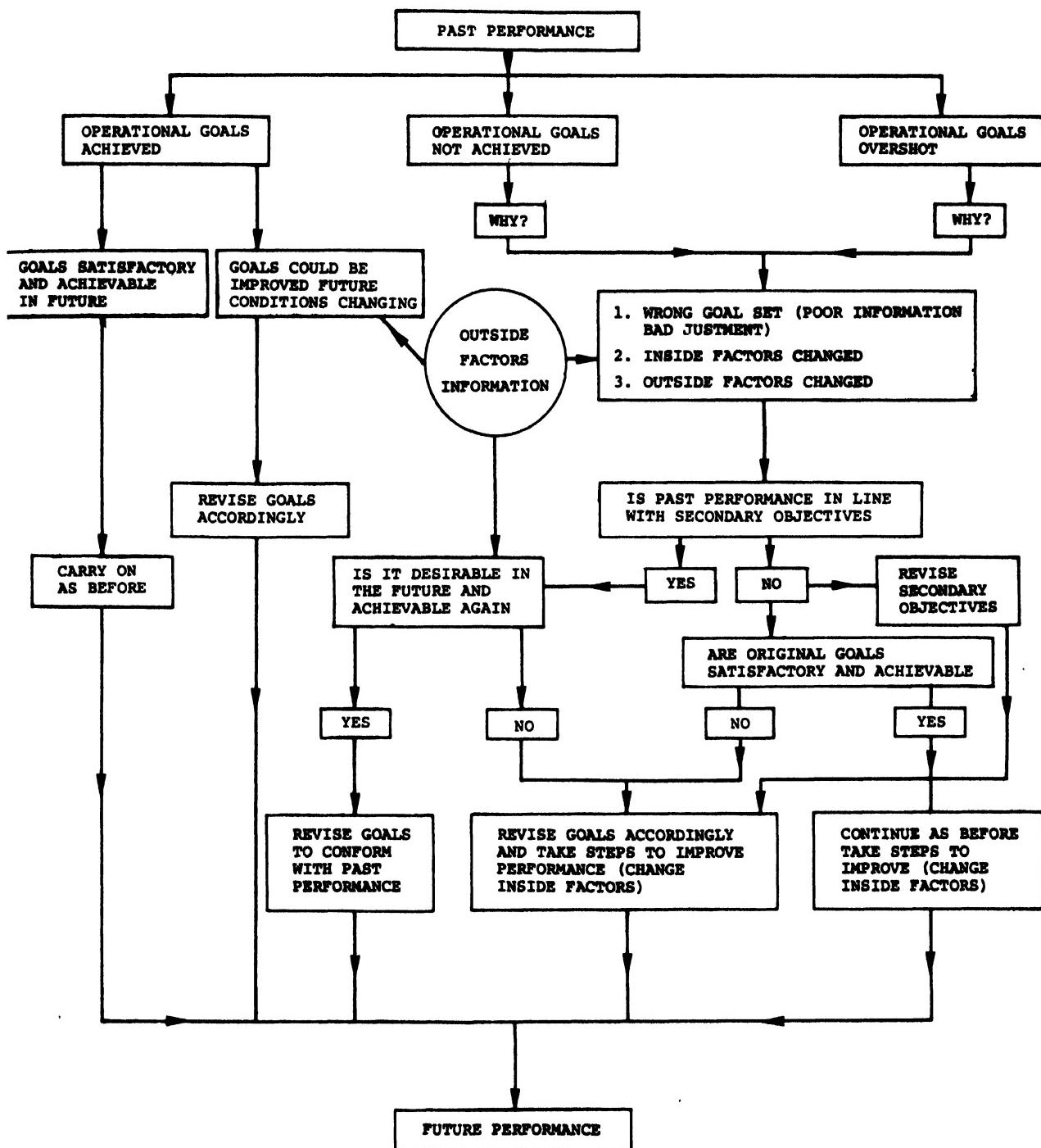
- * they were the wrong goals to set in the first place;
- * conditions inside the enterprise changed in the time period e.g. the engine was out of action for two weeks;
- * conditions outside the enterprise changed e.g. there was a glut of fish and the prices fell.

You have to consider whether the actual performance was in line with the operational goals set last period and with your secondary objectives and whether the same or similar performance criteria would be used as a future goal. You have four options:

- * To carry on as before with the same goals and same methods,
- * To revise the goals appropriately and continue as before,
- * To take steps to change factors within the business,
- * To revise the goals and take steps to change factors in the business

Figure 21 shows these options schematically.

Understanding the principles of planning will be an important tool in ensuring your business develops in the way you want, based on past performance and achievable goals. Figure 22 outlines the various principles of planning, while Figure 23 looks at the planning requirements for each of the four organisation types. Finally, we look at how Jack Fine could use planning to map out his activities for the coming season (Example 15).

Figure 20 Diagrammatic representation of the planning cycle

Planning

Figure 21 The planning cycle and review process

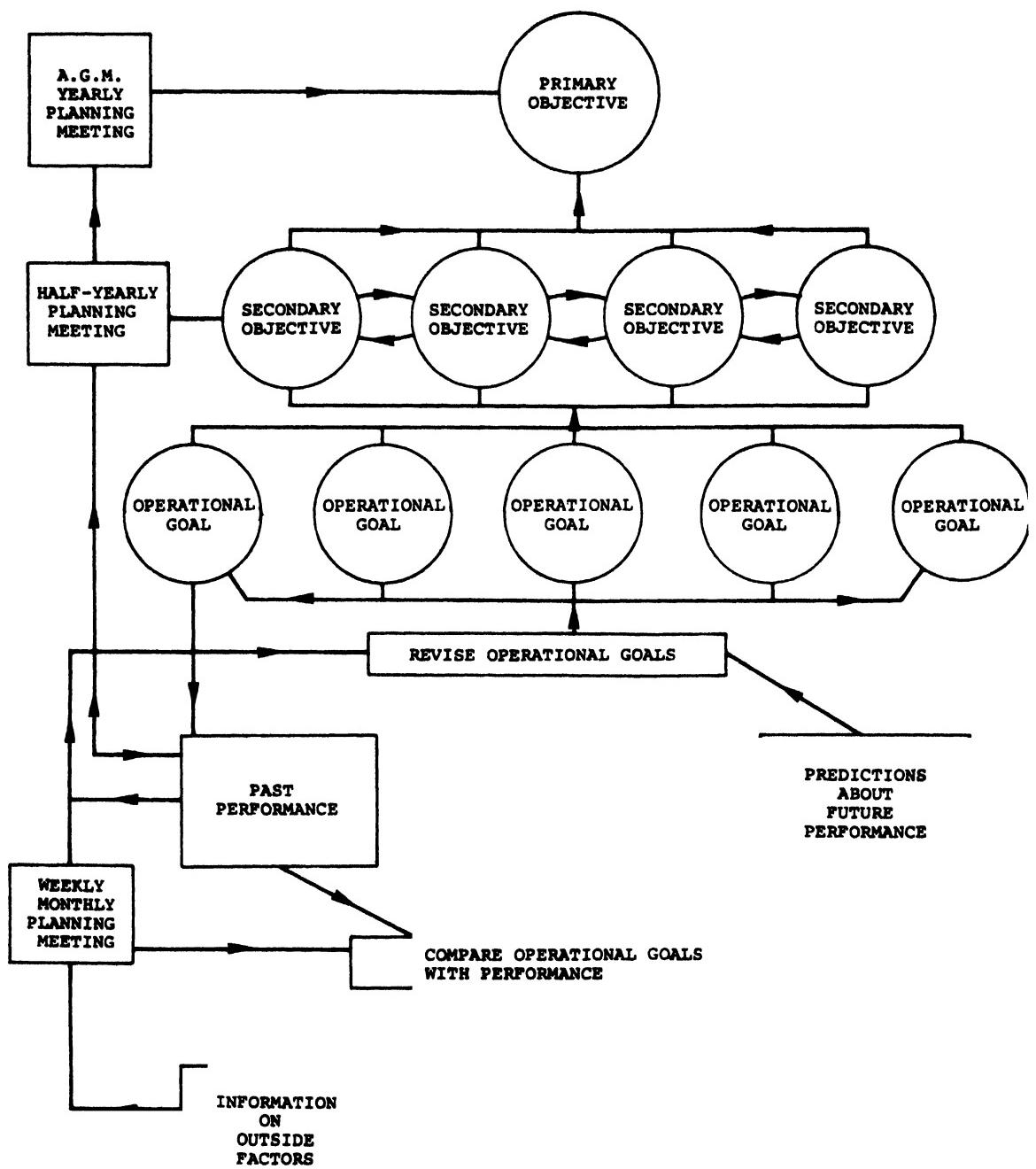


Figure 22 The principles of planning

Planning involves the collection of information on the past performance of the business, and those outside factors affecting it, and using this to construct a realistic picture of its future performance. This picture is then used to draw up or review operational goals which achieve the secondary objectives.

Regular planning meetings are necessary to review operational goals and performance, and one or two meetings per year to consider if primary and secondary objectives are being achieved.

Planning involves forecasting the effects of different options and choosing to implement the most appropriate ones. Comparison with performance allows you to learn from your mistakes.

Planning helps you decide when to do something as well as what to do.

The principles of planning are the same for any enterprise regardless of type or size. These factors will influence the information and the detail required and the scale involved.

Example 15 Jack Fine's planning for the coming season

Jack has established that his equipment requirement for the year is:

- one canoe, paddles and stone (anchor)
- 2 x 10 m x 2 m x 3" stretched mesh gill nets
- 1 fish trap
- 1 set of spears
- 1 set of hand line equipment

He will need to replace one of his present nets and his hand-line equipment during the coming year at an estimated cost of about \$65. In addition he needs a minimum cash income of \$200 to cover the cash needs of himself and the family, some increase from previous years as his children are now reaching secondary school age.

He has also estimated that over the last year he caught about 500 kgs of dart, 250 kgs of sweetfish and 60 kgs of shellfish. Of this he expects to distribute approximately all his shellfish and eighty per cent of his fish catch to family and relations at no cash return.

In the fishing seasons, sweetfish normally sells for about \$1.65/kg and dart \$1.00, so with selling the remaining quantities at prevailing prices, he will earn about \$185. He must, therefore, plan to earn more cash. If he made special efforts during the off-season, when weather reduces supply, he would expect to receive higher prices for his fish locally. This nevertheless would entail considerable risk to himself. Jack has decided therefore to put in this extra effort out of season when prices are high, but to reduce risk by seeking to catch and sell more dart during the main season, since although the prices are relatively low, the market is buoyant and dart is relatively easy to catch, requiring only marginally more effort, therefore, overall.

Figure 23 Planning requirements and procedures for the main types of enterprise.

Types of planning information required for each type of organisation are considered below in order of the complexity of each business.

(i) Sole Trader

To achieve a target income, it is necessary to establish the lowest levels of turnover, margins and prices at which this income can be gained bearing in mind a whole range of other factors that can influence these.

(ii) Association or Partnership

With the formation of an association or partnership the need for written plans and targets becomes more important. The business is still not large enough for any complex planning but there will be one major difference compared to the sole trader's plan, i.e. share of profits. Because this is decided according to capital input, catch ratios, or some other agreed measure, the individuals in the partnership must know whether the agreed targets and plans are being met and carried out.

(iii) Private Registered Company

The two main elements of planning, written plans and targets, are similar to those for an association or partnership, but because of the more formal nature of the organisation, more long-term planning is undertaken and more frequent reviews are made of each part of the company.

Planning has to take account of more outside influences such as different markets (wholesale, retail, overseas) and production may involve more detailed information on laws, trends, etc.. If exports are involved then exchange rates may have to be forecast.

(iv) Primary Co-operative

The level of planning is similar to that for a company, but of a totally different kind. Co-operatives have the additional concern for maintaining or increasing membership and there will be plans directed towards this.

Business plans for the co-operative, however, will be much the same as for any other organisation and will depend upon its activities. The plans for a primary co-operative whose main objective is to provide a service to members in the form of supply of spares, fuel, ice and credit, will be very different from a marketing co-operative.

The important democratic principle of co-operatives makes the need for planning much greater. Thus all members should have the opportunity to become involved in planning the activities of the society, and even if they delegate this responsibility they should have an opportunity to comment upon plans made on their behalf. It is vital for the well-being of the society that plans are accepted by the members.

Marketing Strategies

Marketing may be defined as those commercial activities associated with channelling product from the producer through to the consumer or end user. Marketing is not just selling fish, or presenting fish for sale, or even determining the price at which fish is to be sold. These may be more correctly defined as merchandising functions. It is a combination of these and many other activities that go to make up the operations of a business.

To be successful in marketing you need sound information about the workings of the business, how the business fits into the industry, and specific information on the main markets for the business. The marketing information base thus uses much of the information collected for basic planning, with a greater emphasis on market parameters.

The analysis of this information is used to develop the marketing strategy of the business. This is then re-checked against what is known about the market to establish the risks associated with the particular marketing strategy, and to determine whether or not they meet the objectives and goals of the business, as an input to the full planning process. Marketing and planning are inseparable and essential to the well-being of a business. As planning depends upon a large and diverse information base, so too does marketing. The development of a marketing strategy, however, also depends upon its particular database, market research (see below).

Marketing strategy is related to the objectives of the business, and the constraints of the real life market in which sales have to be made. As such it is, at its best, a balancing act between what you hope to achieve and what is currently achievable.

The definition of marketing objectives, goals and plans is difficult; all the more so because the influencing factors are constantly changing. The variety of marketing decisions which have to be made within a strategy is detailed in Figure 24.

Figure 24 Examples of marketing strategy decisions

- * what products to sell - fresh or processed fish.
- * to sell them wholesale to traders or retail to the public.
- * where to sell (central market, outlying markets, roadside).
- * how much to sell each day.
- * what facilities you need (shop or stall).
- * how to present your fish.
- * what price to charge.
- * what to do with surplus fish at the end of the day.

If you make a mistake, e.g. on the siting of your stall or the price you charge, you will quickly realise and be able to feed the information back into your marketing strategy. Market feedback is an essential part of

Marketing strategies

planning. It is important to be able to alter your strategy as conditions change. Once again, look at the example of Dennis Parr.

Example 16 Dennis Parr - Marketing Strategy

Based on the analysis of his business performance over the last year (figures assumed to have been drawn up), Dennis has been able to put together the following description of his marketing strategy:

On the production side, there is little doubt that he should concentrate his efforts on gill netting and trap fishing until such time as he can afford a motorised boat. Looking at the catch rates operative for deep water hand-lining there is little doubt that this is the fishery to be in. However, some consideration should be given to the operating parameters of a motor vessel (particularly costs). In the meantime, for an expenditure of \$100 for two new nets, and a commensurate increase in fishing effort, Dennis would be taking positive steps to meeting his prime objective.

On the marketing side it is certain that at any level of increased production Dennis must seek markets away from his village. To this end forecast revenues would suggest that he sell to the Marketing Authority or, if a suitable man could be found, a trader willing to purchase direct from the village. These options appear well founded on detailed consideration.

It may be possible for Dennis to split his options by selling to both outlets and thus improve the security of selling all his fish as and when it is landed. Such a solution would however depend on the reliability and the agreement of the trader.

In addition, however, Dennis would be wise to establish his own private customers and to sell prime fish at premium prices. The trader however may make the sale of such fish to him and him alone part of his agreement to trade.

With regard to product quality, market information suggests that his present production is quite acceptable, although there are undoubtedly problems associated with deterioration of wet fish due to the total absence of any preservation techniques, exacerbated by the market requirement for ungutted fish (a condition that usually arises when gutting is regularly done only to disguise the fact that deterioration is already well advanced). Dennis would be advised to establish his own credibility amongst his private customers as a supplier of only prime quality fish, and that he guts fish only in the interests of his customers. This is a reasonable part of his promotional activities.

From a description of his current methods employed in preparing salted dried fish there is little doubt that losses in revenue must occur due to wastage and poor quality. He must direct efforts to improve this area of work.

Based on costs and revenues it is easy to see that sale of sweetfish is most profitable and that he should try and maximise production and sale of this species.

In all his efforts he should seek to demonstrate stability and security, to present his customers with a fisherman they can trust and respect. In this way he can develop the goodwill of his community, the Marketing Authority, and his indirect customers. Such an image will always work to

his advantage in the long term, and will also increase his stature with the Bank, the Extension Officer and with the Fisheries Department.

As regards price, Dennis is at no time in a position to state his own price, he is a price taker. However, he should play the market for the best price with the greatest security. In doing so he should be prepared to settle for prices well below those reported in the main market, but sufficient to secure his desired profitability.

While the foregoing paragraphs describe a very simple and general marketing strategy, they are quite sufficient for the type of enterprise under consideration. However, every step that has been taken in formulating the strategy is identical to that which any business must undertake to arrive at its own marketing strategy.

Having stated, discussed and decided upon a marketing strategy it is now necessary to put it into practice. Preliminary work in this direction will allow Dennis to check and support his figures, to assess if his costs and revenue estimates are of the right order, and to ascertain if a suitable trader or middleman can be found to purchase his production. By feeding such information as he finds back into his models he should be able to 'fine-tune' them to better serve his purposes.

Market Research

Market research aims to provide information on how much fish is sold, who buys it and where and why it is bought in preference to other fish products. This information is used to project into the future the analysis of current activities.

Market research tries to interpret that information so that it is useful to formulate the marketing strategy. There is no point in gathering information which you do not need. Example 17 illustrates the results of basic market research.

Ask the right questions to get the most useful information. Even the simplest data will help formulate your marketing strategy. Market research helps to assess the risks involved with particular marketing strategies. There are various sorts of market information, as outlined in Figure 25, while data on consumer habits will prove most useful in deciding the type of product you sell (see Figure 26).

Market research includes the following steps:

- * what marketing decisions have to be made?
- * what do you need to know to make them?
- * what types of market research will answer these needs?
- * how will the information be analysed?

This clarifies the need and can lead to:

- * formulation of the questions to be asked
- * decision on who to ask
- * decision on the way in which you will ask them

Figure 25 Types of market information

The sort of information you need generally falls into the following categories:

- * why do people buy fish?
- * what are the prevailing prices for various species, sizes, etc.?
- * to what extent do variables such as size, species, product quality and price influence the purchaser?
- * what quantities of various species, types, etc. are marketed daily/weekly/monthly/annually?
- * what would be the effect of a change in price (up or down) on the demand?
- * does the purchaser buy more on one day, week or month, than another; if so why?

Figure 26 Consumer Information

With your knowledge of the business, you could ask your friends and customers a few simple questions to provide sufficient information on how best to sell your fish.

More detailed information could give you answers to:

- * the average weight of fish which people buy and consume?
- * what form of presentation is preferred?
- * what sorts and weights of fish products are supplied at the moment?
- * whether or not the buying population can be divided into smaller sections, each with a slightly different approach to buying fish or coming from a different area e.g. richer/ poorer sections of the community?

Example 17 Ministry of Finance: Basic market research

As part of its normal background work the Planning Department of the Ministry of Finance undertakes reviews of the market for various products. A recent review of the market for fish produced the following general results.

- * people eat fish because they like the taste; it is generally cheaper than meat; it is available every day; it is easy to prepare
- * on average people eat the equivalent of 45 kilograms of whole fish per year, counting both children and adults
- * as a general guide, more fish is eaten by rural communities than urban; this is principally because fish is more readily available to rural communities
- * in the urban community people would eat considerably more fish if the price were reduced since their consumption is generally limited by the amount of free cash they have
- * the richer people in the urban community generally eat a different species of fish to the poorer members of the community
- * the rural communities obtain at least half of their fish free from friends and neighbours or they barter it for vegetables
- * the rural community predominantly buys its fish from the fishermen as they land
- * the urban community predominantly buys its fish from the central or suburban produce markets

You can make very real decisions about your business with this sort of information. Using the data above, if you were planning to sell in town, it would seem obvious to sell in the central market - obvious really means "low risk".

A high risk or more difficult option, which might have higher rewards, might be to sell in some other location which would attract buyers who do not at present go to the central market, or who might be prepared to buy more frequently from a local sales outlet. Such a site might attract a specific sector of the market e.g. a high income group, people from a nearby factory or travellers on a particular bus route.

This example shows the use to which market research can be put. In the above, it is considered safest to open a stall in the central market. This decision should prompt you to ask about the competition; whether or not all trading licences for the market have already been allocated, or whether established traders would be able to effectively "lock-out" a new trader.

Much more additional information will be called for to assess if the extra income generated is worth the higher risk. You could make some simple enquiries of people in the area, or even do some trial sales there. In the following Example (18), Don Marsh reduced his risks, and that of the bank from which he borrowed part of his set-up capital, by undertaking his own market research tailored to his own needs.

Feasibility studies

Example 18 Subjective market research undertaken by the Seahorse Company Limited

When setting up the company, Don Marsh, with the assistance of the Small Business Development Advisor, had to undertake a market assessment for inclusion in his submission to the bank for start-up capital. Since this first assessment he has added to it using information that he has picked up during every-day business.

His analysis can be summarised as follows:

Parameters of the market for smoked fish products

- * Traditional market products are well accepted, but predominantly prepared by the families who consume them; only a small amount is traded through the cash markets.
- * Over the counter sales are greatest in Arcady through permanent grocers and dry good shops; little is sold alongside fresh fish and little is sold through the open markets.
- * There is a growing demand for lightly smoked sweetfish and dart products amongst the relatively well off consumers of Arcady; such products have a relatively short shelf-life.
- * Sales of smoked fish to the general public are highly price sensitive, i.e. sales decline substantially if there is an increase in price, whereas sales to the upper part of the market, the restaurants and the hotels are relatively insensitive to price.
- * At the upper end of the market there is the preference for cold smoked split fish or fillets, whereas the traditional market is for hot smoked and dried whole fish (gutted only) or split fish; the two markets are quite distinct.

The analysis of risk

At some point, sufficient information will have been accumulated to satisfy the proprietor, manager or board, that a particular course of action is warranted. The level at which this may occur will depend on the particular risk characteristics of the decision-maker(s). Some people are prepared to go ahead on a decision based on rather limited information i.e. they are risk-takers, others prefer to be much surer of their information, i.e. risk-averse. The successful entrepreneur is generally someone who can judge accurately the maximum risk he can accept without prejudicing the security of the business. On the other hand, the risk-loving entrepreneur will either end up out of business because the decisions he has made, based on limited information, have later proved to have been bad, or he will be rich having made, by accident or judgement, accurate or successful decisions in high risk areas.

Summary

Market information is invaluable in preparation of a market strategy. Yet the collection of such information does not have to be a specific exercise, as there are many sources of data to which you may already have access. Look at Figure 27, and think of the type of information you yourself could easily collect.

Figure 27 Sources of market information

- * Your own business records
- * Fisheries Department personnel and records
- * Local government/town council offices
- * Trade departments (especially for export)
- * Other fish traders/colleagues
- * Your own suppliers
- * Your own customers
- * The general public

A marketing strategy is the way in which you decide to sell your fish, how much, to whom, where and at what price. It also covers how you present it and what you do with surplus fish at the end of the day.

Do not be afraid of mistakes in marketing. Mistakes provide essential feedback to your marketing strategy and should be used as a part of market research in the continuing process of improving your marketing. Be sure, however, that the mistakes made are not large enough to break the business.

Finally, always remember the consumer, the final customer, is always right. His demands and preferences have the greatest influence on the market.

2.5. FEASIBILITY STUDIES AND BUSINESS PLANS

2.5.1. General

A study of the viability of a project or business before you start can prevent costly mistakes. The feasibility or business study, as it is known, should be appropriate to the size and complexity of the project or business. This chapter considers two levels at which such studies might be made: the most basic and a more complete study.

Your business may be operational already, in which case you have a very good idea whether or not it is viable and do not need a feasibility study. Instead you may draw up a Business Plan, which sets out your current position and how you see the business developing. Whether you call it a Feasibility Study or a Business Plan does not really make any difference for the information required will be similar.

Basic Feasibility

2.5.2. Basic Feasibility and Simple Business Plans

One of your first tasks will be to establish some basic facts about the business. If exact information is not available, you may have to make some intelligent guesses. If you are starting a fishing operation for example, you must find out the details noted in Figure 28.

Alternatively, you may be interested in a fish selling business and thus you would wish answers to the questions posed in Figure 29.

With this sort of general information you can begin to formulate more specific questions aimed at your own business, and the type of information you may require, is covered in Figure 30.

Figure 28 Examples of Basic Information

If you are starting a fishing operation for example, you must find out:

- * what fish can be caught by which methods?
- * how much effort is needed to catch the fish?
- * what equipment needs to be used (or is available)?
- * how long does it take to catch fish?
- * are some fish easier to catch than others?
- * how much does it cost to catch a fish?
- * does catchability remain constant?
- * what factors affect catchability?

Figure 29 Examples of marketing information

- * what is the demand for fish?
- * who buys it and where are the principal outlets?
- * how much fish is bought?
- * which types of fish and fish products are preferred?
- * what price can these fish fetch?
- * how distant are the markets and how much are transport costs?
- * is ice available and how much does it cost?

Figure 30 Example of business specific information

- * how much fish can each boat reasonably catch in a day?
- * how many days can we expect the crew to fish?
- * if we put one more crew on (or take one off) what difference would it make
 - . to costs?
 - . to catch volume and quality?
- * can we sell this amount of fish on a regular basis?
- * at what price can we sell such fish?
- * are there any seasonal factors we should take into consideration?

The collection and simple analysis of business information will provide a projection of catches and sales on a weekly or monthly basis for at least one year. With this information it is then possible to cost your various business activities, to project revenues, to establish the cash flow, and assess the cash requirements of the business; in fact to make the first stage of a plan.

This plan, however, would be of little use if you had no way of measuring how effective it was in practice. This is where you refer back to the primary and secondary objectives. After establishing whether or not the plan is practical, and whether or not any simple mistakes, oversimplifications or omissions have been made, the plan can be compared against the objectives. Where they do not fit, alterations have to be made. Where they cannot fit, re-examination of the assumptions that both make up the plan and the objective(s) is called for. Back to the drawing board.

In this way it is possible to draw up a picture of the future operations of the enterprise. The detail of such a picture will depend on the time and effort spent, and the quality of the information used. There are no such things as right and wrong pictures, but there are good and bad ones. Unfortunately, it is generally only possible to determine the quality of the picture afterwards, when it can be compared with actual performance.

You should now have a firm idea of how to go about formulating a simple feasibility study, but the information contained in Figure 31 will help guide you through the process by providing easy reference points.

The benefits of this type of planning should be obvious - they reduce the haphazardness of running a business, reduce risks for the employees, owners and investors and create security, continuity and confidence.

Such information and analysis may sound daunting, time consuming, and in the long run not necessarily worth the effort. This is not the case - the level of planning should be relative to the type, style and size of enterprise under consideration and should only use up a very small part of the financial and human resources available to the company.

Feasibility Study

Figure 31 The steps needed to make a simple feasibility study

- (i) Find out information about the industry
- (ii) Fit this information to your own business
- (iii) Make weekly/monthly projections of production and sales and establish the cash flow requirements
- (iv) Cost the different activities, project revenues and establish the cash flow requirements
- (v) Refer back to the original objectives to see if they fit
- (vi) Set operational goals

If you are confused, and not sure of the benefits to be gained from planning, you should seek assistance and advice from a fisheries officer, business advisor, or other businessmen.

2.5.3. A Fuller Feasibility Study

If the business proposed is more complex or if it involves a substantial investment by yourself or a financial institution, a more detailed feasibility study is called for. It is an assessment of the risk of making or not making good use of the money and other resources available/required, and of being able to recoup and repay the cost of any development. An example of such a thorough feasibility study is presented for the Grant Family business in Annex 1.

The feasibility study should include three aspects:

- * Resource feasibility
- * Technical feasibility
- * Financial feasibility (including a market survey)

Resource feasibility refers to having, or being able to obtain, resources necessary for a job. These include human, material and natural resources (fish, water, etc.). It is necessary to establish that people of the required skill are available to the business, that boats, buildings, storage and processing materials are available or can be made available, and that there are sufficient "fish in the sea" to accommodate the requirements of the business.

There is no point in investing good capital in the hope of catching or buying non-existent or scarce fish or using ice when there is no way of making or obtaining ice locally, or where all available manpower is employed in other businesses. Check the resource availability first.

Technical feasibility means finding out whether it is technically possible to catch and/or process the quantity of fish required. The scale of operations will be defined by consideration of both technical and financial feasibility.

Technical information can be obtained from Fisheries Departments, suppliers of equipment and other operators using similar equipment etc..

Financial feasibility may not be so well understood by small scale operators who know the practical and technical side to their business well. If you do not feel confident that you have the right information, or are not sure how to analyse it, or if you simply need a second opinion, advice can be sought from the sources shown in Figure 32. A brief look at Arcady Fishermen's Co-op's plans, under Example 19, will serve to illustrate the various factors for consideration.

Figure 32 Sources of planning advice

- * Fisheries advisors
- * Fisheries project staff (if there is a development project in your area)
- * Government small business advisers (trade department)
- * Accountants
- * Bank managers
- * Lawyers
- * Specialist consultants
- * Suppliers of equipment

Accountants, bank managers and lawyers will probably require some fee, but fisheries staff and advisors may well offer some sort of free advisory service. Suppliers of equipment may give some advice free in the hope of making a sale.

Example 19 Planning for expansion - the Arcady Fishermen's Co-operative

The Arcady Fishermen's Co-operative is still in its early days of operation and has much to learn in the way of management and organisation. Nevertheless the Co-op. members have made a concerted effort to analyse their individual and group positions and how they wish to see the Co-op. developing.

They wish to increase their production through making better use of the boats and gear now available to them, but they cannot do this without substantial improvement in the disposal of their catches. Accordingly, their short to medium term goal is to further develop the marketing side of the Co-op., so allowing the fishermen to concentrate on catching fish and placing the responsibility for marketing on one of the existing members, a new member or even one or more people employed by the Co-op. for that purpose.

At this time when they are trying to consolidate their position with a view to later growth, they have analysed their assets along the lines of Resource, Technical and Financial feasibility with a view to developing their marketing activities. Their review may be summarised as follows:

Feasibility Study

Resource Feasibility

- * They have three good boats with the Co-operative, each of which could be used more often than at present.
- * Their premises are not suitable for handling fish and need to be replaced or significantly upgraded.
- * The Co-op has no transport and normally uses public transport to take fish to the market some 2 miles away; any further increase in the quantity of fish taken to the market would necessitate them hiring a vehicle for the job rather than just using the existing passenger service.
- * While availability of dart is good nearby, and well able to withstand increased fishing effort, the general opinion is that an increase in sweetfish landings would necessitate the fishermen going further afield; this would result in longer trips to and from fishing grounds and increase fuel costs.

Technological Feasibility

- * While the members consider that the fishing technology they currently employ is adequate for current needs, they would like to look at possible improvements in fishing methods and fishing gear, and in boat safety.
- * None of the members has any direct knowledge of the use and value of ice, and while they are sceptical of its value, they see that some of the stall holders in the market now use ice; they feel they should know more about this.

Financial Feasibility

- * Current cash resources are \$25; stocks are valued at \$45 and \$235 has been issued in short-term loans to the members. Repayment of \$80 of the loans is now more than 2 months overdue; in consequence the Co-operative has currently very limited financial resources.
- * The members have, in addition, various outstanding loans from the Development Bank; while repayment schedules are being met (under pressure from the Bank) payments on the two new boats and outboards, and on the engine for the third boat, will have to continue throughout the coming year.
- * The Co-operative Federation and the Development Bank have agreed to consider providing further financial assistance, but only after the Co-op has demonstrated its ability to manage its affairs in a more organised fashion.

This brief analysis of the status of the Co-op allows the members to establish the options open to them and to develop in more detail their business plan for the coming year, and to establish if and how they should seek further technical and financial assistance.

The financial feasibility study is based on utilising the resource and technical information to determine the financial viability of a particular operational unit and can be applied equally to an existing enterprise or a new venture. It may be combined with a practical study

or marketing survey and will assist in identifying areas of difficulty and make recommendations for change or action as appropriate. In the case of an existing business, known facts will be used while for a proposed new venture it will be based largely upon estimates and projections, based in turn upon logic and such facts as are available.

The main benefits of a detailed feasibility study are shown in Figure 33.

Figure 33 Benefits of a detailed feasibility study

The study will assist:

- * in determining the most appropriate status for the business, i.e. sole trader, small family group, partnership, co-operative or small, private, limited liability company
- * in justifying existing borrowings, subsidies, grants etc. or to obtain new or increased facilities
- in setting targets for the operator/manager of the business and for formulating policies and decision-making procedures

In addition to direct financial feasibility, the feasibility study must contain detailed appraisals of each operation undertaken - catching, landing, processing, storing, distribution and marketing - in order that the financial implications can be examined and included under the appropriate sections. Other details will include background and history of the operation, the concept (if a new venture), and particulars of the individuals involved (e.g. their experience, ages, qualifications and their expectations).

The report needs to include up to date historical accounts, where appropriate, as well as projected accounts (see Figure 34).

Figure 34 Historical and projected accounts needed for planning

- * Trading Accounts
- * Profit and Loss Accounts
- * Balance Sheets
- * Cash Flow Statements for the future accounting period, reflecting proposed expansion, improvement and potential market growth. Some detailed costings of each stage of operations will need to be included so that the operator can calculate his break-even point and determine his pricing policy

Accounting, costing and budgeting are covered later, as is the preparation of cash flow statements (see Section 3.5.). If you are expanding your business, you will have to become as familiar with these financial tools as you are with local conditions and technical skills. You will also need to find out about any grant aid that may be available - both National and International - and other sources of finance (loans). This will show you the most suitable methods of financing the proposed operation.

Feasibility Study

A detailed check list for use in preparing the Feasibility Report is given in Annex 2. A summary is given below (Figure 35). Look at the Annex and run through the type of information required, and then relate this to what has been prepared for the Grant Family business.

Figure 35 Summary checklist for a feasibility study

- * A feasibility study should identify the costs involved with doing something and the likely benefits. Costs and benefits may have social as well as financial implications.
- * If you are making a substantial investment a more detailed feasibility study is necessary. This should include three aspects - resources, technical feasibility and financial feasibility.
- * The feasibility study includes detailed appraisals of each part of the business and historical accounts should be included where appropriate. The methods of financial appraisal are similar for any business.
- * The feasibility study must consider how loans are to be serviced and whether you will have enough cash left over for yourself. It will consider how supply and demand affects the prices of your products and the processing and storage facilities required. It will indicate if the supply is already too great for the demand or if there are gaps which you can fill.
- * For all operations, especially retailing, the volume of sales and profit margins are important to the feasibility. Budgets and cash flow forecasts will help to establish the break-even point and whether any changes in scope or scale are needed to make the operation more viable.
- * Marketing strategy is a more detailed part of the overall business plan concerned with generating revenues. Marketing strategies depend upon market information gathered by market research.

3. OPERATING A FISH BUSINESS

3.1. INTRODUCTION

Operating even the simplest of fish businesses can be both complex and difficult as there are so many different factors to be taken into account when deciding on what step to take. Some people have a natural talent for running a business. They seem to be able to collect the most important information, bring it together in their minds and take relevant decisions, sometimes instantly. Most people, however, have to work hard at being a manager or proprietor; they have to acquire the ability to identify useful information, to analyse it logically and to make appropriate decisions. For them there are no simple short cuts to successful management. The following chapters, however, describe, step by step, the various factors that must be considered and understanding these will help you adapt to your management role much more easily. Remember what you have learnt from the previous section, with the need to clearly define your objectives, and keep these objectives in mind while considering the various factors involved in operating a fish business.

Each facet of management forms part of a logical pattern, but does not contribute fully to the business until viewed as part of the whole. Management is the ability to incorporate differing information in a complete, balanced manner and to take the right decisions at the right time to achieve the objectives of the enterprise.

Defining the limits to your particular situation

Operating a fish business can be more complicated and demanding than at first appears. General principles of management, man management, financial management and marketing are important and common aspects to the management of most businesses. They each, however, depend on the actual physical parameters of the business - scale of the business, the raw material and final products, location, fishing facilities, handling facilities, processing, distribution and sales facilities.

First, then, we should look briefly at the physical facilities and how they affect the way a business is run.

Scale is a critical factor, since this is closely related to the objectives of the business, the resources available to and required by the business, the most appropriate organisation for the business and just how the business is to be managed. The important thing to note is that all the above aspects are inter-connected, and that changing one aspect of the business, say buying an additional boat, can affect almost every other part of the business.

A number of factors comprise "scale", each of which are of major concern in determining how the business is to proceed. First is the financial size of the business. This can be measured by one or more of total turnover, total revenues, level of working capital, amount of loan capital, value of fixed assets, value of share capital, percentage margin obtained on product sold, or profitability. Most of these items are described in the section on financial management.

If these figures are then combined with the level of diversification of the business, it becomes still clearer as to how the business should be run. For instance a canoe fisherman who sells his fish from the beach is

Introduction

markedly different from the business where fish are bought from the fishermen at auction, processed and distributed to a distant market at the wholesale level. Or a business that sells whole fresh mackerel requires a very different type of management to one that sells six types of processed product for each of three species of fish.

In fact, with a general description of the scope of the business and the financial profile of a business, a bank manager can assess fairly quickly whether a business is doing well, or is likely to do well, by comparing its performance with other businesses of the same form. This should be borne in mind when considering expansion and when looking for any type of finance.

The next determining factor of the business is then the technical. What levels of technical ability and expertise are required, and can they be easily found? Look at Figure 36 to see the various factors for consideration.

Figure 36 Examples of technical requirements of the business

- * Is it better that the fishermen use traditional fishing techniques that they are experienced in, or should they try new methods?
- * Should fishermen use a simple compass, or radio communications and sonar to allow them to go further afield and locate more fish, or should they stay inshore where they know the waters and where to find the fish?
- * Is the "management" of the business capable of looking after ten people or should the business restrict itself to two or three people?
- * What level of technology does the business use, and is the workforce capable of this level of technology?
- * What effect(s) does this have on the type and style of management needed to run the business?

Another physical factor is that of the resources available - natural fish resources, land, basic infrastructure, roads, markets, support services. Most of these factors are beyond the control of the individual business, but without certain factors, the business either becomes unworkable, or different management techniques become necessary.

The final factor of the basic equation is that of logistics. Care must be taken in locating the business in the most profitable position, bearing in mind the logistics of getting to and from fishing grounds, landing sites, handling and storage facilities, markets, support services, transport facilities. Each inter-relationship has an associated cost, which must be compared with the revenues generated by every activity. Setting up with the wrong logistical format will very easily lead to the ruin of the business. The relationship between the various physical locations of the business also, obviously, affects how the business is to be run, and the amount of time and effort that needs to be spent on each connection.

In summary, then, important physical factors associated with the management of the business are:

- * scale of business - financial, functional
- * technical requirements
- * resources
- * logistics

As should be clear by now, setting up and managing a business is an enormous balancing act. Insofar as a change in one aspect of the business can affect many other aspects, it is necessary to assess what the short and long term results of any action will be and whether or not they are good for the business.

One final constant factor in all this, assuming that the business is directly associated with the fish industry, is the fish itself. To simplify the analysis of the business, an important rule to follow is to always bear in mind that you will only continue to sell your products just as long as someone wishes to buy them. It is essential that you choose your products to suit the market - this does not just mean the types of products, but also the cost of the product and the price it can be sold for. The type of product will then dictate in most regards the actual functional aspects of any business - catching, handling, storage, processing, distribution and merchandising.

The topics in this chapter are arranged as follows:

- * product
- * principles of management
- * man management
- * financial management
- * marketing

3.2. PRODUCTS

Choosing the right product for the business is part of a complex network of interacting factors. In most cases the final outcome will show itself in the financial success or failure of a business. The factors relating to product choice are discussed in the following sections.

- | | |
|---|--|
| <ul style="list-style-type: none"> * shelf life * technical requirements * production procedures | <ul style="list-style-type: none"> * product yields * distribution * cost factors |
|---|--|

3.2.1. Choosing a Product

The product is the final form in which the fish leaves your business at whatever the point in the chain. Some businesses will not change the form of the fish at all, others, e.g. processors, will convert it to a completely different form. The product is your main advertisement and will reflect the care and quality which you bring to the handling of the fish.

Choosing a product

Choosing a product is by no means as simple a proposition as it may at first appear. You may have produced and sold whole fresh fish in the past, but you may not have done so profitably. A whole range of factors may in one way or another cause a manager or business proprietor to change his mind about his choice of product. Examples 20 and 21 look at two possible cases.

Example 20 Higher production costs causing change in marketing strategy

The use of a powerful and expensive outboard engine to get to and from the fishing grounds may mean that your costs are so much higher than those of the other fishermen who use sail powered fishing craft, that you cannot compete effectively with them in the same market. As a consequence you have to seek other markets for your products, to produce higher value-added products or to revert to sail powered fishing. Because you can land your fish more quickly, you may concentrate on very high quality iced fresh fish for sale direct to hotels.

Example 21 Longer distribution chain causing review of shelf-life of product

A trader is finding it increasingly difficult, and less profitable, to sell his fresh fish locally. He finds it necessary to seek markets elsewhere, but the extra time and transport involved means that different products have to be chosen, so that they have the life and quality to compete in more distant markets. Suitable preservation techniques including evisceration and icing, or drying, must be considered.

In these two examples, to continue a tradition of catching and selling fresh whole fish appears to be less suitable and less profitable than producing and selling other products. The reasons behind this provide considerable insight into the operation of a fish business.

Factors affecting the facilities and systems used in a business

Within any fish business the facilities required and systems employed to manage and operate the handling, processing and distribution of catches will be determined by:

- * the volume and types of fish handled
- * the range of products
- * the market demand for such products
- * the capital, human and managerial resources available to the business
- * the state of technological development of the existing production, processing and market sectors of the industry

Ultimately these factors have financial implications, which on balance must prove positive for a business to be successful.

Margins and Mark-ups

Costs associated with the handling, processing and distribution of individual products vary considerably. For this reason, products which fetch the highest prices in the market place are not necessarily those which are most profitable.

When examining profitability it should be noted that two ways of establishing price exist. There is the price that the business can bear, i.e. costs plus profit, and the price that the market can stand. Whether or not prices are calculated on a "costs plus" or "market price" basis, it is essential that on average the sales price is higher than the cost price. This is known as a positive profit margin. Even so, the level of profit may be no better than that obtainable from another available investment opportunity, say interest on a bank deposit.

But profitability is not just related to price, but also to volume. Thus, large volume sales of a low margin item may produce greater net revenues than low volume sales of a high margin product. Our character, Dennis Parr, finds this with his sales of dart and sweetfish as Example 22 shows. Additionally, from a costs point of view, fish which can be sold directly at the landing site without further processing or transportation may be a distinctly better business proposition than a filleted product of equivalent weight, despite prices being some three or four times higher for the latter product.

Example 22 Dennis Parr: costs and revenues

Dennis's business deals with only two species of fish, dart and sweetfish. He can catch 600 kgs per year of sweetfish which can fetch a price of \$3.50/kg with costs around \$1,200 per year, or he can catch 2,800 kgs of dart per year which fetch \$1/kg with costs around \$1,500.

Sweetfish	600 kgs @ \$3.50/kg =	\$2,100
	Less \$1,200	= \$900/annum

Dart	2,800 kgs @ \$1/kg =	\$2,800
	Less \$1,500	= \$1,300/annum

With profits respectively of \$900 and \$1,300, from this partial analysis, dart would appear to be the more profitable species to pursue. Care must be taken, however, to ensure that all aspects of producing and selling these fish are taken into consideration; for example, if Dennis decided to increase his catch of dart substantially, would he be able to sell it all at the same price, or at the same costs?

The product, or product range, selected by a small-scale operator will largely be determined by;

- * the species of fish available
- * the forms which local consumers and caterers have preferred
- * the prices obtainable for specific products in the market place
- * respective profitability of specific products

3.2.2. Shelf Life

Shelf life is an important factor in determining the actual choice of product. It is critical to match products to the length of the distribution chain between producer and consumer and the conditions that that product will be exposed to. Fish is a highly perishable commodity and it is this factor, above all others, that necessitates a close matching of product and distribution chain.

Shelf life may be defined as a combination of the length of time it takes before a product becomes inedible, the rate of quality deterioration and the conditions under which the deterioration occurs. The customer is always right, for if he thinks the fish is inedible he will not buy it, whatever the supposed shelf life. The level of spoilage and its effects on the condition in which fresh fish reaches the consumer is largely determined by;

- * the initial condition of the fish
- * the length of time that has elapsed since capture
- * the temperature at which it has been held

The effect of temperature control on shelf life

The rate of spoilage of fresh fish increases with time and with every degree rise in ambient temperature (and consequently every degree rise in fish temperature).

Distribution must be as rapid as possible and at as low a temperature as possible. Under tropical conditions, a distribution time of a few hours only would be suitable if fish was kept at ambient temperatures. At high temperatures (i.e. over 15 degrees Celsius) such fish has a very short shelf life indeed - often much less than 24 hours.

Extension of this shelf life can be achieved by reducing the fish temperature by several degrees Celsius. Gutting and washing in clean cool water can improve the shelf life mainly when fish is dirty with mud or sand or when it has the stomach full.

The role of ice and refrigeration

Alternatively, extension of shelf life by several days and sometimes weeks can be achieved by artificial control of temperature using a combination of ice, insulating material and/or refrigeration down to a maximum of minus one or two degrees Celsius. As a rule of thumb, for every hour fresh fish is left uniced after capture, its shelf life in ice will be reduced by one day.

A second rule of thumb is that if fish is iced immediately after capture and is to be consumed within three days there is little point in eviscerating any but the largest fish. Only after three days does eviscerated fish fare better than ungutted iced fish.

Processing to stabilise a product

The problem of spoilage may be reduced by preservation and processing techniques which make the product almost completely stable enabling its distribution and retailing to be carried out at ambient temperatures. For the small-scale fisherman or processor sun-dried or dried salted fish, smoked fish and some heavily salted cooked products fall into this category.

Shelf life can be extended to several weeks in the case of some cooked and lightly smoked fish products, and to many months in the case of dried and hot smoked products. Dried and hot smoked fish are, however, susceptible to moist or humid atmospheric conditions so the need for dry storage is vital during distribution, as is the need to safeguard against rodent and insect infestation.

Other products which remain stable almost indefinitely at ambient temperatures include sterilised, canned and bottled fish. These may be distributed in the conventional manner of dry grocery goods. Such processing procedures are relatively sophisticated and highly capital intensive; they are normally beyond the scope of small-scale fishery enterprises.

Freezing to extend shelf life

A similarly capital-intensive approach to the problem is to freeze fish so that, provided low temperatures (- 30 degrees Celsius) are maintained, shelf life may be six months or more.

The production of frozen fish involves two distinct and separate operations, namely the "quick" freezing of the product (in a plate or air blast-freezer) and the subsequent storage in a low temperature cold store. The slow freezing of fish in a low temperature cold store will produce a product of inferior quality and is not recommended.

If the business is to engage in the production and distribution of frozen fish a freezer and low temperature cold store at the operational base will be needed. Depending on the location of the market to be served, an insulated or mechanically refrigerated vehicle will be required to carry the frozen product to a distribution cold store. Frozen fish is, therefore, a highly capital intensive product and is unlikely to be relevant in the context of small-scale fishery enterprises - unless the throughput of frozen fish is in excess of 1 ton a day, or where the product is a high value export commodity, e.g. shrimp, lobster etc.

Transport

For each kind of product there are certain minimum requirements for type of transport used, and this varies with distance and the road conditions. A summary of suitable forms of transport is in Figure 37.

If a fish product is chilled or frozen, then it has to be maintained at the same temperature throughout the distribution chain to ensure quality is maintained. This implies the need for a chill chain or cold chain, each of which is illustrated in Figures 38 and 39.

Shelf Life

Figure 37 Summary of products and suitable forms of transport

<u>Method</u>	<u>Distance</u>	<u>Road conditions</u>	<u>Product</u>	<u>Quantity</u>	<u>Regularity</u>
Bicycle	Short - 10 km	Any-track to tarmac	Dried, smoked, fresh	Very small	As necessary
Rickshaw	Short - 10 km	Wide track to tarmac road	Fresh, dried, smoked	Small-medium up to 100 kg	As necessary
Public transport (bus/train)	Long 10 km +	Road - prepared or tarmac Rail	Dried, smoked	Medium by arrangement with driver	According to service timetable
Open truck (box body)	Long or short	Road - dirt or tarmac	Fresh, iced Dried, smoked	Medium-large usually 1 ton	As necessary (use with insulated boxes for iced/frozen fish)
Closed truck/lorry uninsul.	Long 10 km +	Road - dirt or tarmac	Fresh/ iced/ dried/	Large 1 - 10 tons	As necessary
Insul.	Long 10 km +	Road - dirt or tarmac	Fresh/ iced/ frozen	Large 1-10 tons	As necessary
Refrig.	Long 10 km +	Road - dirt or tarmac	Fresh/ iced/ frozen	Large 1-10 tons	As necessary

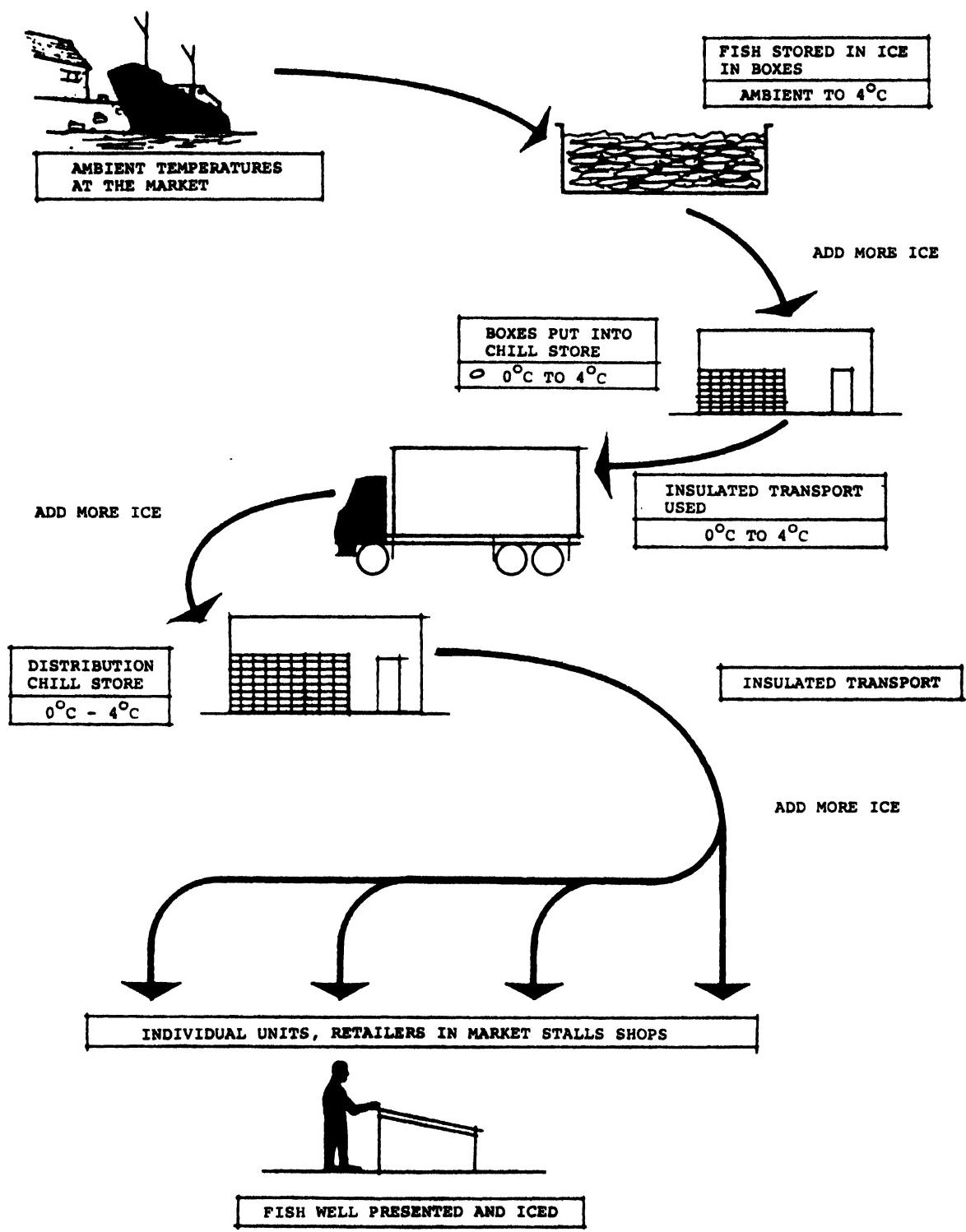


Figure 38 Summary diagram of a chill chain

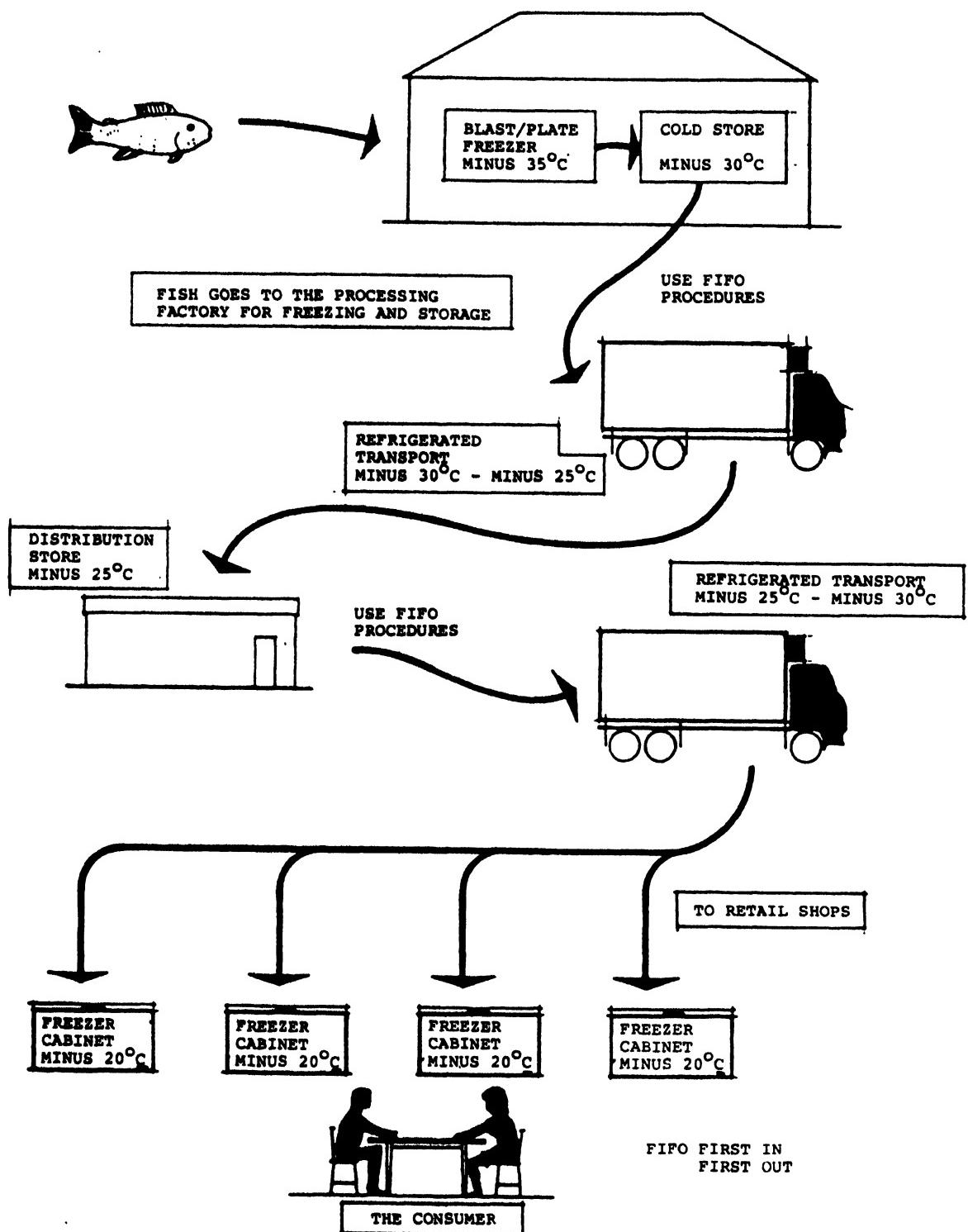


Figure 39 Summary diagram of a cold chain

3.2.3. Product Yields

The following paragraphs consider the subject of yield and other cost factors associated with a limited number of products which are commonly produced and traded by small-scale fishery enterprises. The products used for illustrative purposes are;

- * whole fish (in the round)
- * whole fish (eviscerated)
- * fish fillets (longitudinal sections); fish steaks (transverse sections)
- * sun dried saltfish
- * smoked fish (hot smoked, rather than lightly cured)

Product choice is directly related to speed of distribution. Fresh whole fish is simplest, requiring least capital investment and where quality, price, and wastage can be controlled in favour of the business. But there is a limit to the distance and/or time between catching, landing and selling, and beyond this limit alternative products or product ranges should be considered, or adjustments made to the technologies currently being used. The problems posed to the Arcady Co-op are illustrated in Example 23.

Example 23 The Co-op , a marketing problem

The Arcady Fishermen's Co-op has traditionally sold its products locally to the population just to the north of Arcady. This market is, however, unable to absorb a permanent increase in the level of production, nor is it able to maintain price levels at even marginally increased levels of production. Accordingly, the Co-op has had to take its fish to the northern suburban market, and occasionally further. This has delayed sale of the product and the freshness of the fish has suffered as reflected in prices obtained. The Co-op has thus to make a choice:

- * should they move the operation closer to town?
- * should they purchase ice from town to take out on the boats and use on shore for cooling fish before and during distribution?
- * can they continue their operations as before, but process the fish in some way - drying or smoking - to prolong shelf-life?

Processing procedures and hence product yields vary significantly. Yields from different species of fish vary so that we may expect to obtain 350 grams of fillet from 1 kilogram of grouper, but substantially higher for mackerel. Thus the product yield figures provided here for illustrative purposes are rather general. In the case of processed fish, the yields will depend on the type of product desired, and on the shelf life sought. You should satisfy yourself that you are aware of the product yields obtained in your own particular operation, as a result of the processing procedures you use.

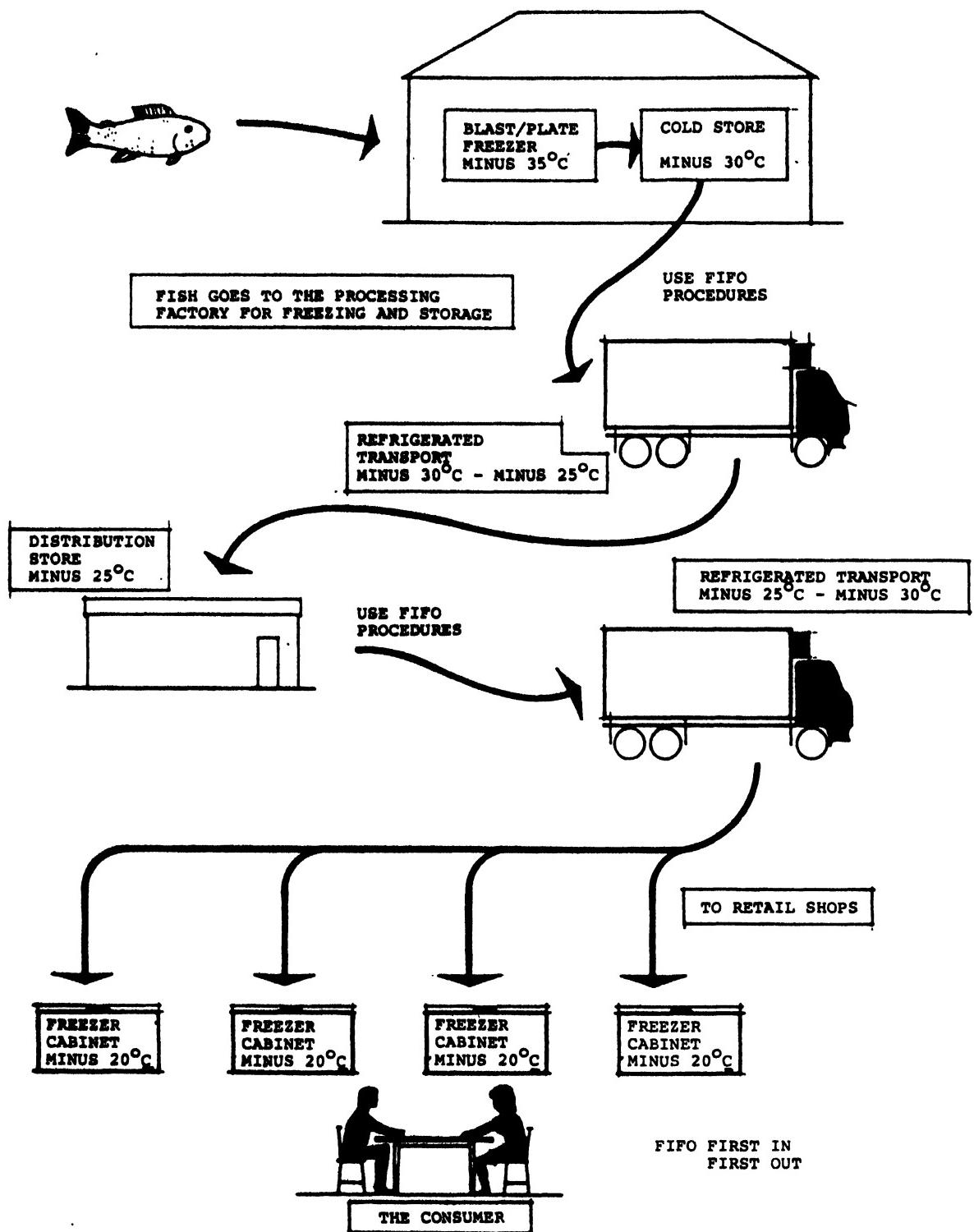


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Product Yields

In Table 25, product yields of 100 per cent have been assumed for whole fish; 82 per cent for eviscerated fish; 35 per cent for fillets; 65 per cent for steaks; 25 per cent for sun dried salt fish; and 45 per cent for smoked fish.

Table 25 Yields of Fish According To Product

<u>Product Weight</u>	<u>Landed (grams)</u>	<u>Yield Factor</u>	<u>Product (grams)</u>
Whole fish	1,000	1.00	1,000
Whole (eviscerated) fish	1,000	0.82	820
Fish fillets	1,000	0.35	350
Fish steaks	1,000	0.65	650
Sun dried salt fish	1,000	0.25	250
Smoked fish	1,000	0.30	300

The figures do not reflect weight losses due to the extraction of drip fluid during handling, cutting, storage and transportation. Whereas such loss will be minimal in whole fish sold at boatside, it can be as high as 5 per cent in fish which has been transported considerable distances, and even higher in cut or processed products.

Using the same yield figures, Table 26 indicates the weight of whole fresh fish that will be required to produce 1 kilogram of product. Thus a business operator producing sun dried salt fish, for instance, will have to catch (or purchase) 4 kgs of fish to enable him to produce 1 kg. of product. At a catch cost of \$1.00/kg for fresh fish, his outlay will therefore be \$4.00/kg of product before any handling, processing and transportation costs are added.

Table 26 Landed Weight Required To Yield 1 Kg

<u>Product</u>	<u>Product Weight (grams)</u>	<u>Yield Factor</u>	<u>Landed Wt Required (grams)</u>
Whole fish	1,000	1.00	1,000
Whole (eviscerated) fish	1,000	0.82	1,219
Fish fillets	1,000	0.35	2,857
Fish steaks	1,000	0.65	1,538
Sun dried salt fish	1,000	0.25	4,000
Smoked fish	1,000	0.30	3,333

This tight relationship between product yield and product costs is a most critical factor in determining product and product range and also in assessing marketability.

3.2.4. Product Cost Factors

Costs associated with the catching, handling, processing, storage and transportation of products, will depend on size and scope of the enterprise, the complexity of the fishing and processing operations and the distances involved in the distribution network. They will include the costs of equipment, materials and services. Clearly, for a fisherman selling his catch at boatside, post harvest costs will be negligible, whilst for a larger business, involved in the production and marketing of a range of products, the costs could be substantial. Similarly the costs associated with operating a small canoe will be substantially different from operating a larger, powered boat.

Table 27 indicates various cost factors that must be borne in mind when dealing with different products, and especially when analysing individual product profitability. You will be able to attribute costs to the factors listed for each product type to your own products. This is a fairly generalised list so if you find that for your products one or two factors do not apply, do not worry, simply use the table below to work out which costs are relevant and what they are. If you need any assistance with attributing costs to your products (particularly the allocation of fixed and overhead costs), when you wish to do so with some accuracy for a relatively sophisticated business with a multi-product range, consult your Fisheries Officer or local Business Adviser.

Table 27 Principal Variable Cost Factors Which May Be Associated With The Handling, Processing, Storage And Transportation Of Individual Fish Products

Cost Factors	<u>Types of Fish Product</u>					
	<u>Whole round</u>	<u>Whole gutted</u>	<u>Fillets</u>	<u>Steaks</u>	<u>Sun-dried Salted</u>	<u>Smoked</u>
Consumables						
Fuel, oil, ice	x	x	x	x	x	x
Water	x	x	x	x	x	x
Electricity	x	x	x	x		
Salt					x	
Wood shavings						x
Packaging materials	x	.	x	x	x	x
Labour						
Catching, Handling	x	x	x	x	x	x
Processing	x	x	x	x	x	x
Transport						
Vehicle running costs						

Management is the name given to ways of controlling and using scarce resources to meet predefined objectives. The resources which are available will differ, but the main ones for any enterprise are money, manpower and physical resources.

Management requires that you be aware of the many factors which can affect the business, incorporating the financial, legal, manpower and physical factors. It means controlling the resources of the enterprise and keeping a record of how they have been used. Such information is then available if and when further changes have to be made in the patterns of resource allocation and use. It means knowing from where to get information and how to go about making decisions using incomplete information.

This chapter looks at some of the general management principles and methods which you can use in whatever area of management you are involved. The more specific topics of man management and financial management will be covered in the subsequent two chapters.

3.3.1. Management Styles

Management styles range from reacting to situations as they occur, through to detailed forward planning and action based on those plans. Like many things there is an optimum, where the amount of time and effort spent in forward planning and management balances inefficiency and lost production in an enterprise. If management rather than production becomes the objective of the enterprise, it will cease to be an effective trading unit, losing its flexibility with a slow response time to changes in production and market parameters.

Three distinct management styles can be identified. These can be described as :-

- * Management by the "seat of the pants" (the thickness of your trousers is the only thing keeping you from disaster)
- * Management by the amount of money in your pocket at the end of the day
- * Management by forward planning

Of these, the last is by far the most effective; the others are transition styles to the third.

Management by the seat of the pants

Management by the seat of the pants is reactive management. At its best it is very flexible, responding to the needs and opportunities of the moment according to the judgement and intuition of the manager. Often the most successful entrepreneurs will use this style but unless this comes naturally, it can be very dangerous. It involves a great deal of risk taking and does not take into account any formal forecasting and planning. As a result development of the enterprise may be rather haphazard. If the business is successful and grows, there will come a

time when this style of management will be inappropriate since it can create considerable confusion in a business of some size and complexity.

Management according to realised profit

Management by "the amount of money in your pocket at the end of the day" is a system geared to profitability on a short-term basis. The amount of money left after all immediate expenses have been paid is used as an indication of how well or badly you are doing. It does not allow you to take into account the irregular or incidental expenses which may arise nor does it allow for some fixed and replacement costs, nor for any forecasting. It does not look at past performance and expenses and use them to plan, but rather uses the financial status of the moment to do this. Cash flow in any business is always up and down and the picture at any one moment is not necessarily an average or a true picture of the state of the enterprise. Without considerable innate entrepreneurship this system of management is a quick road to disaster.

Planned management

Management by forward planning attempts to correct the imbalances of the above methods by examining the income and expenses over the past year or so and noting such underlying patterns as emerge. It allows you to budget for certain expenses so that you can put the money by to cover them when they occur and it also allows you to see where the money is going to. In this way you can get an idea of the critical expenses and hidden costs of a business well in advance of their occurrence, allowing you to take timely and informed action.

Hidden costs which are often forgotten include depreciation of capital equipment such as boats, engines, nets, etc. and labour costs, especially of the manager/owner himself. It is all too easy to forget that your time has a value, in the same way as the more recognisable time costs associated with employees.

One of the dangers of planned management is that it may not allow for any changes in the situation due to factors outside the control of the entrepreneur, e.g. market changes, alterations in government lending policies, accidents etc..

The fisherman or trader may feel that he cannot respond to take advantage of a situation because it does not fit in with the plan. Flexibility can be built into such plans by keeping a contingency fund to cover unforeseen expenses and by regular reassessment of progress and alteration to the plan where necessary. The plan should not be fixed in the mind as the only way of developing the business, but rather as the preferred way in the light of existing conditions. As these change so the plan may change.

Although these three management styles have been related to financial management, they can also be found in all areas of management. They really correspond to the differences between reactive and creative management. Reactive management implies a lack of control over situations; you are blown by the wind wherever it will take you and react to the situations it brings without any plan or idea of the situation you wish to create. Your reactions may be excellent and inspired, but they do not have overall direction.

Creative management implies that you know where you are going and how you are going to get there. You are in control of your business and can use

Management Tools

whatever situation arises to create and develop it further. Knowing the direction you want it to take enables you to assess each situation in that light and to take the appropriate decisions.

It should be noted that planned management assumes that some basic written records are kept. For the other methods, written records are not necessary, but would nevertheless prove beneficial.

3.3.2. Management tools

Some simple ways of presenting information

A number of basic tools are available to all businessmen to help them monitor and plan the performance of their business. The main tool refers to simple numerical manipulation involving the preparation of tabulations using addition, subtraction, multiplication and division, fractions, decimals and percentages. If you have difficulty with basic arithmetic, it is well worth the effort learning and practising these simple manipulations.

A development of tabulations is the representation of the same information in diagrammatic form using graphs and bar charts. A diagrammatic form of displaying choices (normally expressed without figures) is the decision tree. Examples of all these are given below and some further examples of playing with numbers are given in the financial examples given in Chapter 3.5.

A numerical tabulation is the listing of one set of quantities against another - for example, catch per month for each month of the year, or the number of fish of different size making up each day's catch. (see Tables 28 - 29).

The Decision Tree

The Decision Tree helps decision-making by clarifying the sequence and inter-connection of events, and the consequences of decisions. It is not, in its simplest form, concerned with either time or quantity. Businessmen will not often need to use a decision tree, but for helping with long-term planning and establishing major objectives, it is a very useful tool.

When a business is expanding (or contracting) rapidly the decision tree can provide the best way of presenting a logical argument. For example if sales are increasing and catch rates are good the logical step is to increase catch rates by one or more of a variety of methods, which can be represented by a decision tree; each decision step has a consequence; each subsequent action depends upon a choice - either YES or NO or a choice of one of several courses of action.

Application in planning

The Bar Chart can be used for short and long-term planning and for both simple and more complex operations. It cannot, however, be used for highly complex situations nor does it show how different events depend on each other. For this you would use a decision-tree. Various examples of application are given below (Examples 24 to 27).

Table 28 Total monthly fish catch for one complete year (kg)

Total catch kgs.	<u>Months of the year</u>												Total
	J	F	M	A	M	J	J	A	S	O	N	D	
	800	950	600	400	350	350	500	600	600	750	800	900	7,600

Table 29 Number of fish caught on a daily basis, listed by length of fish

Size:	<u>Days of the Week</u>							Total
	M	T	W	T	F	S	S	
cms.	0 - 4.9	2	0	5	0	0	2	- 9
	5 - 9.9	1	4	0	2	5	2	- 14
	10 - 14.9	2	5	9	3	0	9	- 28
	15 - 19.9	8	11	8	0	4	2	- 33
	20 - 24.9	6	2	0	1	3	2	- 14
	25.0 +	1	1	3	2	0	0	- 7
Total		20	23	25	8	12	17	- 105

These can be constructively expressed as percentages (see Tables 30 & 31). Totals from the above are expressed as percentages of the daily total and the weekly total.

Table 30 Monthly catch expressed as a percentage of total annual catch.

Total Catch as a percentage of annual catch.	<u>Months of the year</u>												Total
	J	F	M	A	M	J	J	A	S	O	N	D	
	11	13	8	5	5	5	7	8	8	10	11	12	7,600 kgs.

Table 31 Sizes/classes of fish expressed as a percentage of daily and weekly landings

size:	<u>Daily</u>							Total Weekly
	M	T	W	T	F	S	S	
0 - 4.9	10	0	20	0	0	12	-	9
5 - 9.9	5	17	0	25	42	12	-	13
10 - 14.9	10	22	36	38	0	53	-	27
15 - 19.9	40	48	32	0	33	12	-	31
20 - 24.9	30	9	0	13	25	12	-	13
25.0 +	5	4	12	25	0	0	-	7

These tabulations can also be shown graphically (see Figure 40) or as a bar chart (see Figure 41).

Figure 40 Monthly catch weight expressed graphically

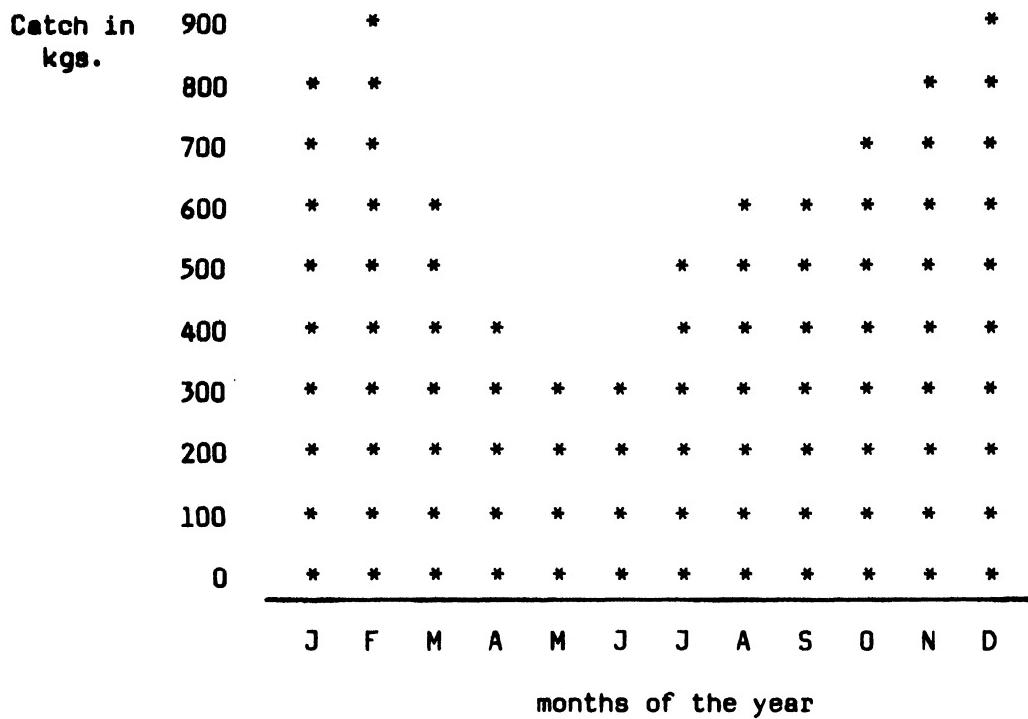
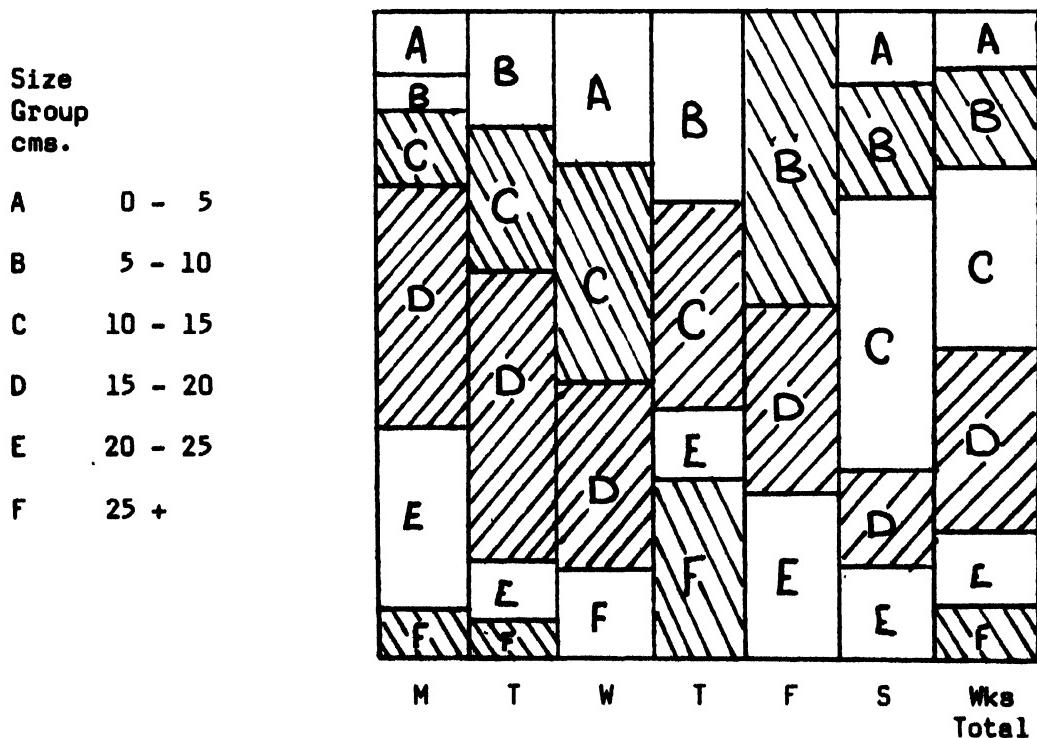


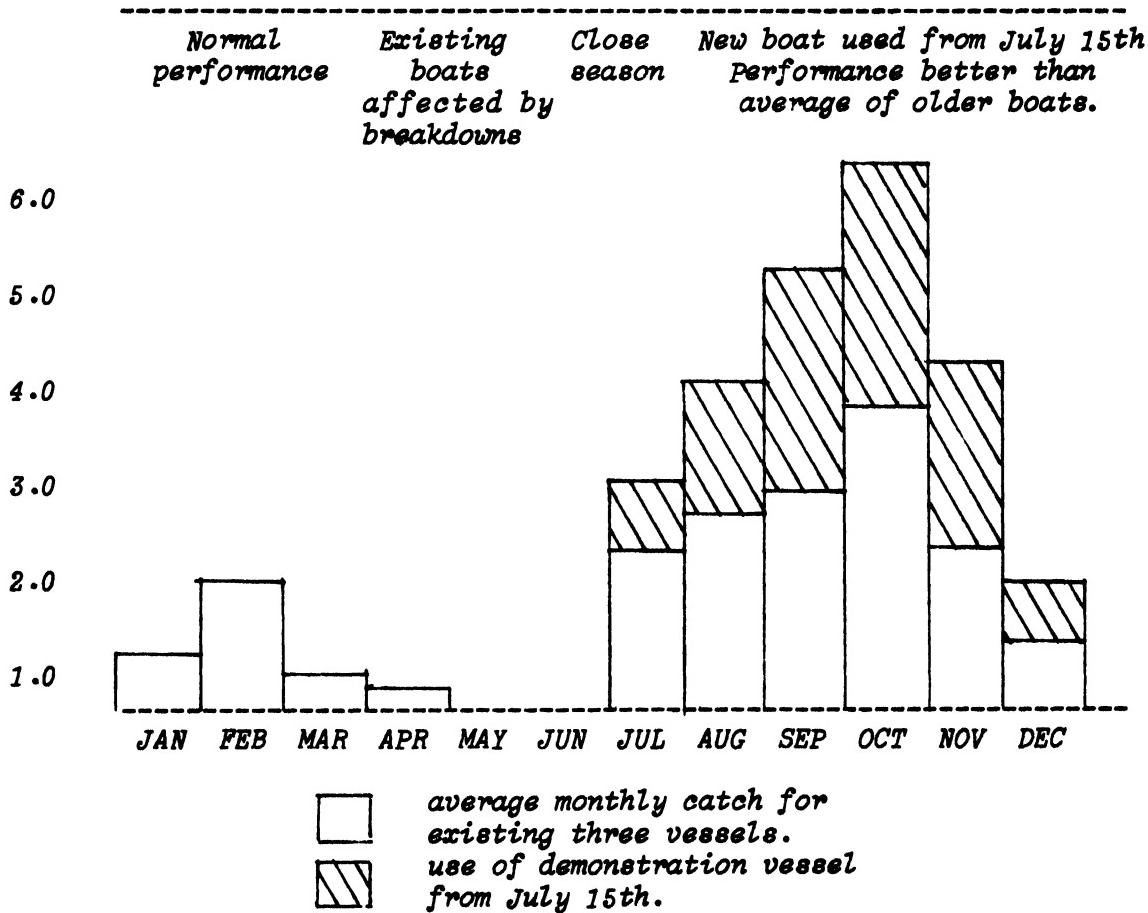
Figure 41 Daily catch composition (numbers in each size group) as a percentage of total expressed as a bar chart



Example 24 Example of a vertical bar-chart

In its simplest form the bar chart records the timing of events. It can show when a boat is at sea, and in particular, when it should go to sea. The Figure below shows an example of a vertical bar chart in which the catches of the Grant family business are recorded per month; by plotting the timing of events you can assess the influence they hold, e.g. close of season, boat breakdown, purchase of a new boat.

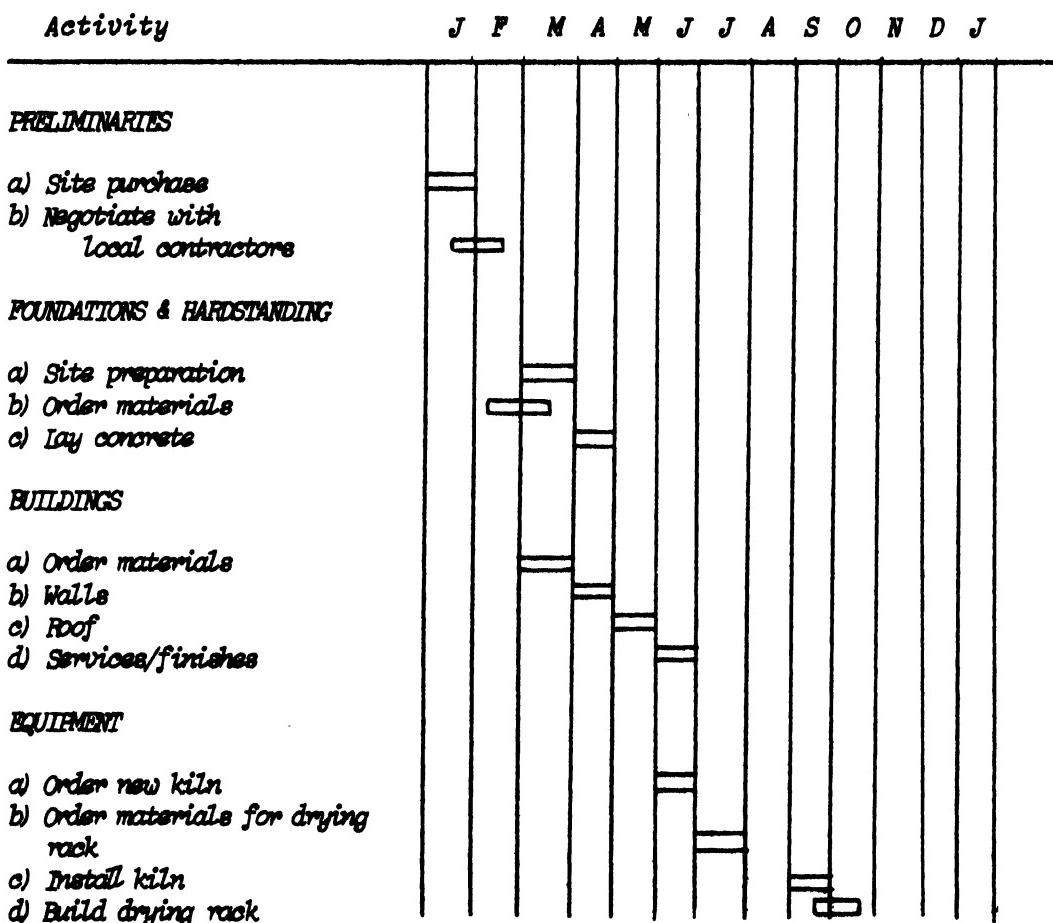
Bar chart showing monthly catch records for the Grant family business showing effect of use of demonstration vessel.



Example 25 Don Marsh's expansion programme

In the case of Don Marsh and the expansion of his processing capacity, a number of factors are inter-related in space and time. For instance, he will not be able to install a new smoking kiln until the foundations have been prepared. The use of the kiln will depend on an increased facility for buying, holding, processing, packaging and distributing the increased production. Don could thus draw up a horizontal bar chart showing the timing.

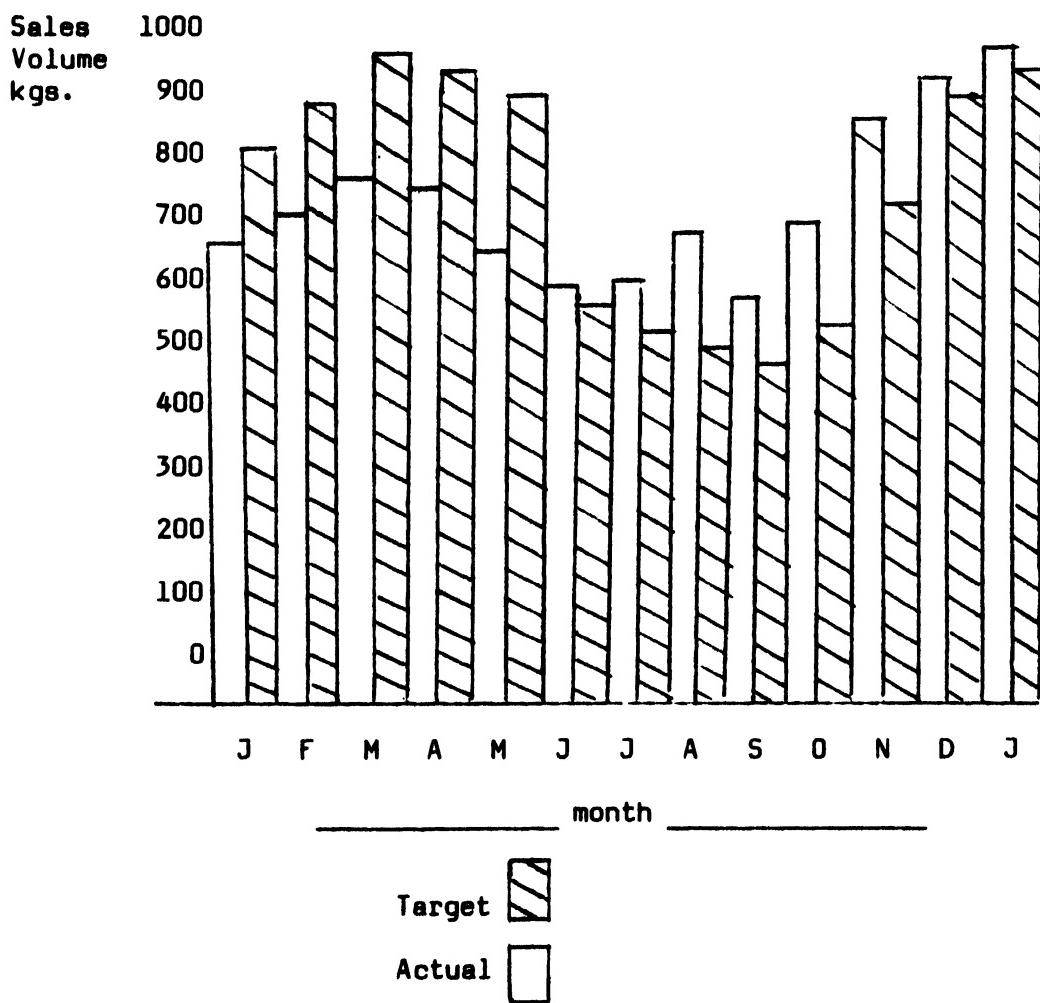
Horizontal bar chart timing of dependent activities in the expansion of the Seahorse Co. facility.



Example 26 Arcady Fishermen's Co-Operative: Target Attainment

Another use of the bar chart is in showing how targets, e.g. sales or production, are achieved (or not) in a given period of time. If half way through any period it appears that the target will not be reached, you can then take steps to rectify the matter.

Thus the Co-op might record catches and sales, prices and revenue. These figures can be compared with targets set according to the objectives and as part of the business plan. Under or over performance will be easily seen and corrective action can then be taken.

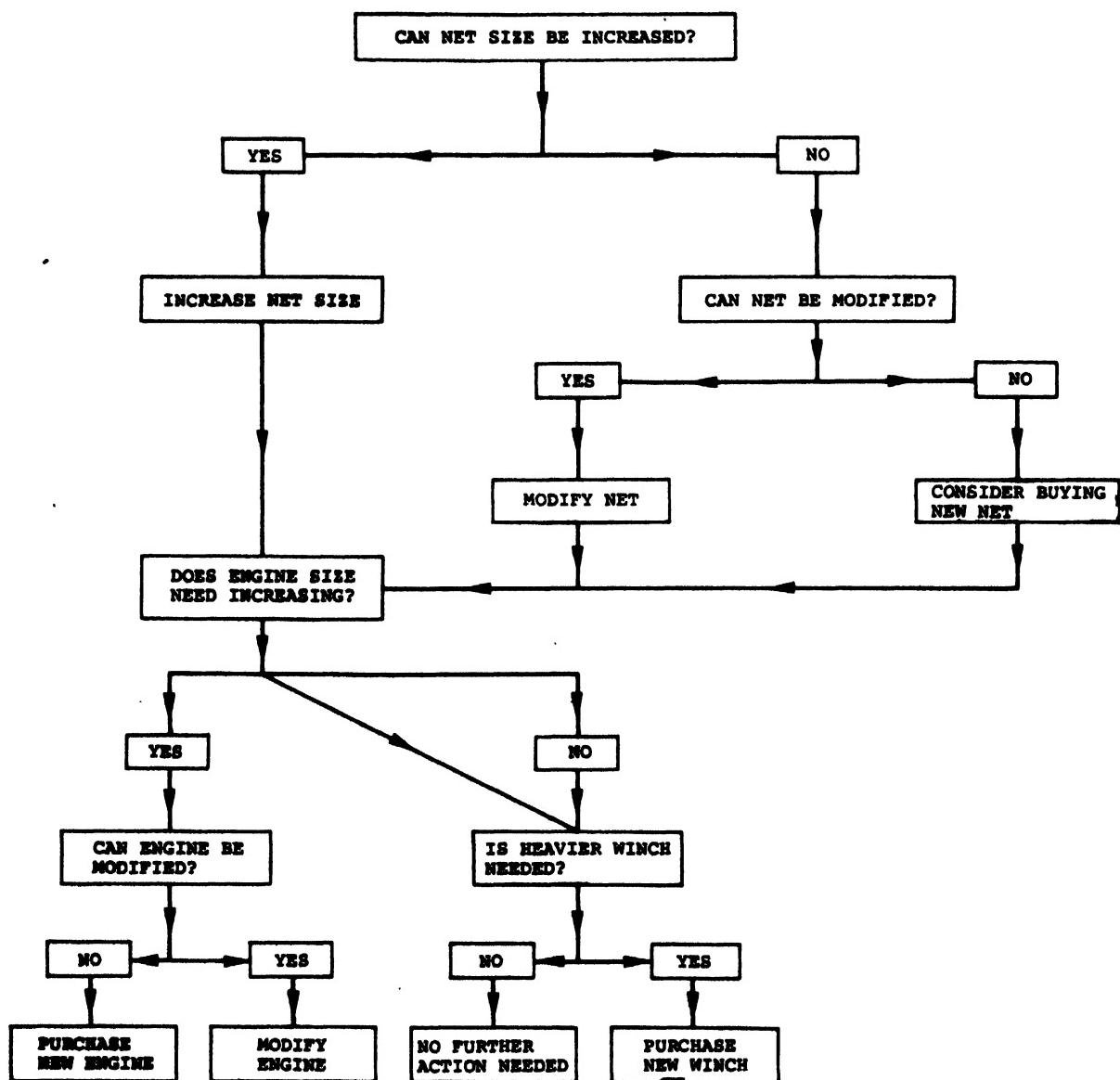
Vertical bar chart showing monthly sales volumes against planned targets.

Example 27 Example of decision analysis

In the case of the Grant family, they have an objective to improve catch rates to take advantage of improved sales facilities and marketing opportunities. From the figure it can be seen that a certain line of action causes no additional problems, but that some lines of action result in inevitable increased expenditure or capital outlay. It would be quite wrong to purchase new nets and then find later that there was not enough money to pay for a new engine or winch.

A simple decision tree showing the consequences of a course of action to achieve an objective.

Objective: Courses open to an enterprise to increase catches by changing the size of net used.



More complicated bar charts and decision trees can be used by businessmen/managers to analyse the past years' performance and clarify the budget for next year. The figures which are needed for the budget are obtained from previous year's sales sheets and expenditure records. These are then expressed graphically as bar charts etc., to illustrate any changes or trends to be taken into account. The requirements for capital expenditure for the next year will then be planned using decision trees and all the information put together in the budget. The analysis of the information may present a number of alternative courses of action, in the same way that a number of alternative plans may have been considered at the beginning. Management tools may thus be seen as aids to making decisions.

3.3.3. Decision making

Decisions in business range from the small and instantaneous to the large and critical ones which require forethought and information. Management decisions tend to be better the more the information there is available from which to make a judgement between options. Usually, however, there is never enough information, so the decision has to be made using a mixture of what there is and the experience and intuition of the manager. Management by the seat of the pants is just decision-making with very little information to go on and without a definite plan to follow.

Decision making involves seven separate steps.

- * Recognising the problems
- * Identifying course of action
- * Assessing the consequences of each course
- * Finding out further information
- * Comparing each alternative before making the decision
- * Acting upon the decision
- * Evaluation and feedback

The way Dennis Parr might use the decision making process is illustrated in Example 28.

Positive management may of necessity involve deciding not to do anything, but to let events take their course rather than actively forcing something to happen. The stay-put decision should always be considered as one of the options available and the consequences of staying-put assessed for comparison with other options.

Example 28 Example of decision making

Dennis has been selling fresh fish since he began fishing 10 years ago. Over the years his catch has increased as he has bought a better engine and less perishable nets. However, he finds that he can only sell a certain quantity of fish, and the rest often goes to waste.

Step 1:

He realises that there is a problem in what to do with the wasted fish, but that this also presents a potential opportunity.

Step 2: He sees that there are three options:

- (a) To reduce the time spent fishing to fit the market that he has.
- (b) To process the fish as a second product in the same market.
- (c) To contract a fresh fish trader to buy the surplus fish for a second market.

Step 3:

Alternative (a) is not acceptable, because he does not want to do another job and the money he makes is not really sufficient for his needs.

Alternative (b) requires an investment in processing equipment, and employment of processors, since he does not have time to do this himself. It is also not clear whether the second product would be acceptable in his own market.

Alternative (c) involves the identification of a trader which is relatively easy. The trader is unlikely to be satisfied with the quality of the fresh fish, especially after the drive to the second market. He would therefore only buy the fish if it were iced.

Step 4:

Ice is available (the trader can bring it with him) but an insulated container will have to be built at a cost. The ice itself will add a running cost, but the fisherman anticipates being able to ask a higher price than he is getting now because of the improved quality.

Step 5:

He makes the decision for the third alternative.

Step 6:

He constructs an insulated box and contracts with a trader to bring ice and take away his surplus fish.

Step 7:

He finds that with time the trader has become his prime outlet for the fish, since at times of poor catch he has purposely taken fish from the supply otherwise destined for the home market and given it to the trader. The home market has become his secondary market.

3.3.4. Management of meetings

Meetings are a necessity for any business, whether it is an internal affair to discuss policy, or operational and employment problems within the organisation; or external to discuss sales with customers or legal matters with government departments. They can be more or less formal depending on the circumstances, but whatever the formality, certain points can be borne in mind to ensure that the meeting is effective (see Figure 42).

A special type of meeting is the Annual General Meeting (AGM). These are legal necessities for co-operatives and limited liability companies. They are arranged each year after the annual audit i.e. the drawing up and checking of the accounts by a qualified accountant. The audited accounts and annual report of the activities of the organisation are presented or circulated beforehand (ideally at least 3 weeks in advance) and any of the shareholders has the right to question the board of directors at that meeting. AGM's are also used for electing the chairman, secretary and new board members for the next year, for agreeing that the reports are a true statement of the activities of the organisation over the past year, and for appointing the auditors for the next year.

Figure 42 Points to remember to ensure that business meetings are effective

- * To have an objective for the meeting - the reason why it is being held - and, if possible, what you want to get out of it.
- * To have some form of agenda for the meeting, i.e. to know what is to be discussed, and in what order.
- * To set a time limit by which a decision must be made, or the required information gathered, or any other objective achieved.
- * To stick to the topics you want to discuss. There is always room for stories and social discussion afterwards, but get the business over first. In more formal meetings, it is one of the main duties of the chairman to keep the meeting on track and to time.
- * Keep records of meetings, (a legal necessity for annual general meetings and for board meetings of co-operatives and companies). These need not be extensive, but should note the topics under discussion, possibly the main points of view, and most importantly any decisions taken. If there are any disagreements about the decisions, those disagreeing from the majority can also be noted.

Minutes of formal meetings are usually kept by the secretary, but for informal meetings you may send a record of agreements and decisions to the other people. If they then disagree with your record, it is up to them to get back to you. If they do not come back, you can assume that the agreement stands.

AGM's can be very boring affairs, but legally a quorum (i.e. an agreed, usually significant, proportion) of members or shareholders have to be present. To encourage attendance, AGM's may be combined with other, more interesting meetings, speakers or parties.

3.3.5. Management and the law.

In running a business considerable responsibility lies with the proprietors and management to liaise with Government authorities and to ensure that in operating the business the laws of the land are kept. The basic legal responsibilities of each type of business have been dealt with in a previous section, 2.3. Most of the more formal types, however, require annual auditing, annual returns for tax and company registrars and, if there are shareholders, an annual general meeting.

Other government departments may also have legal right to certain standards, reports, or actions being complied to, for example:

- * fisheries departments for licences;
- * trade departments and town councils for marketing arrangements and licences;
- * food and health departments to ensure that fish and fish products sold are safe and free from contamination;
- * labour departments for employment regulations, wages and any social security schemes.
- * transport or sea-communications department for boat construction, seaworthiness, seamen's tickets etc. also for looking after road-worthiness of motor vehicles, driving tests, road taxes etc.
- * Ports Authority for harbour dues, berthing facilities, use of landing facilities. etc.

It is the duty of the manager to be aware of all those laws and legal requirements which affect the business, to know when licences are due, and to follow up any legal changes which might be made etc.. The manager cannot be expected to know everything, and so he must be able to recognise at what point to consult legal and accounting advisors on particular aspects.

3.4. MAN MANAGEMENT

Man management is the skill with which you deal with employees and the trust you build between your workforce and yourself.

It is important to remember that you are very dependent upon the employees who make up your workforce for the success of your business. Likewise they are dependent upon you for their living. If your management of them or of the business is poor, the future of the enterprise is at risk.

Man management has to do with the trust you, as the manager, have in the workforce and vice versa. If there is no trust built up between yourselves, any problems which arise in the business will become more difficult and you may find eventually that you spend more time in trying to manage the workforce than in managing the business and making it a success.

This chapter deals with the styles of man management and ways in which you can be clear about the responsibilities each employee has and what his job should be.

3.4.1. Man management style

There are two opposite styles of man management; which are illustrated in Example 29.

- * **management by directive:** what the manager or proprietor says must be acted upon regardless of whether the employees consider it right or wrong
- * **management by consensus:** in which the manager arrives at a decision through discussion with his employees who act upon it because they agree with the decision

Example 29 Examples of directive and consensus management

Both styles of management can generate the trust necessary for good manager/employee relations without which no organisation will flourish. If the decisions and directives are considered to be good and fair by the workforce, the tougher style of management will be respected and it will tend to be accepted by employees. If they are not good and fair, the manager will not earn that respect, employee relations will deteriorate and the business will suffer as a whole.

Conversely it is not necessarily an expression of weakness for the manager to find out the opinions of the workforce and to come to a decision with them. The advantage of this style of management is that if the employees feel that they have an influence upon decision making and accept the decisions that are taken, they are more likely to be committed to acting upon them. However, it does require much more trust on the part of the manager that the employees will respond to the responsibility that they are given in a positive way. The other advantage of such trust is that it develops greater personal initiative in the workforce, which can ultimately lead to improvements in techniques, savings in energy and costs and greater job satisfaction.

There are obviously many styles in between these two, and some situations lend themselves more naturally to one form more than another. For example, in a skipper-crew situation on a fishing vessel where snap decisions have to be made for safety and efficiency, the skipper has to issue orders and expects them to be obeyed. On other matters he may well seek the opinion of the crew.

Personality may play an important part in management styles especially in a small organisation where the personalities of the employers and employees are more evident. Thus some managers may tend towards the directive, especially when dealing with more difficult employees, others will use a more sensitive and freer style of management.

As your business grows from a one-man operation you will be obliged to delegate some of your work and your authority to others. The employees have the responsibility to carry out certain tasks and activities and are accountable for their performance. These areas of responsibility can be attributed to one or more employee positions in the enterprise.

All growing businesses involving a number of employees will develop lines of responsibility. Ultimately the proprietor, or the partners are responsible for everything, but the day to day operation of parts of the business can be delegated to other employees. As the business grows adding more activities to the enterprise or expanding business to several distinct locations e.g. at sea, in the harbour and in the market, there may be a need to create separate divisions or sections of the business.

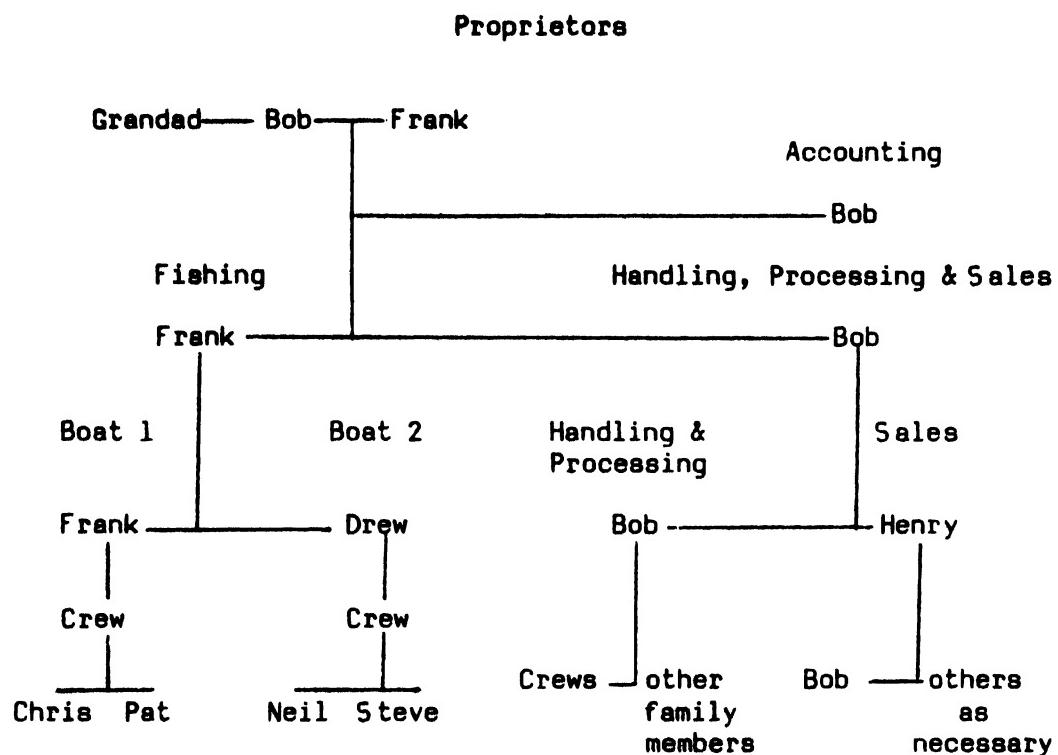
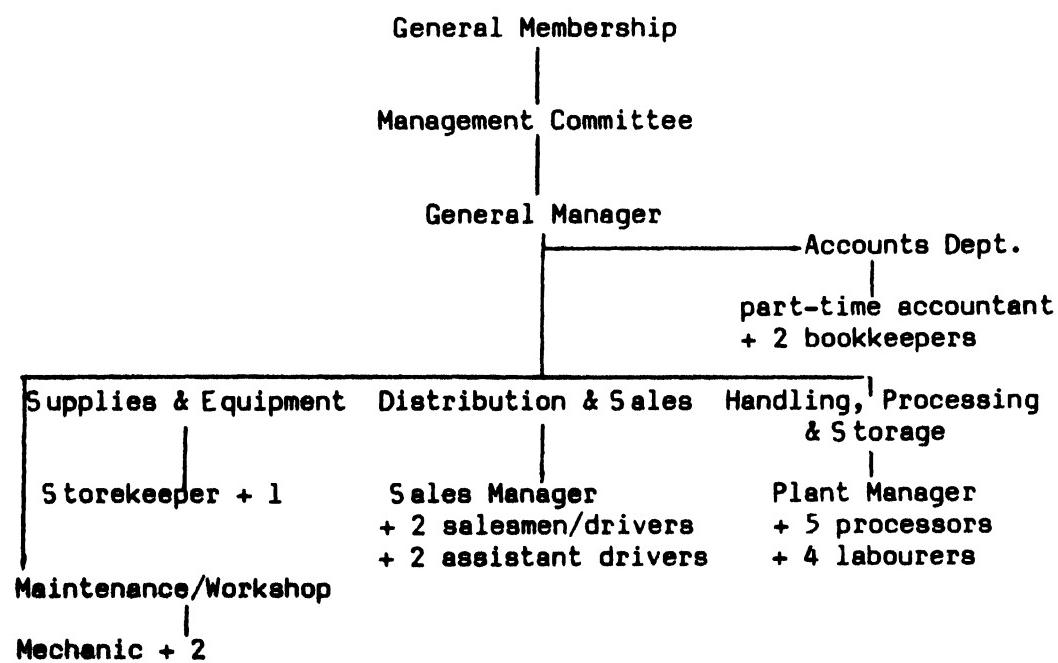
Example 30 Example of line of responsibility

Line responsibility usually corresponds to the functional separations within the business, and each section will have its own responsible person - manager, foreman etc. As more people are employed in these sections so the overall structure and levels of responsibility become more complex; nevertheless the lines of responsibility connect vertically through to the managers, the board of directors and the proprietors. Thus every employee knows his place in the hierarchy, to whom he is responsible and for whom he is responsible. Figure 43 illustrates this idea of line responsibility in relation to the Grant family business.

Smaller organisations have fewer levels and branches of responsibility, but the principle is the same. Even co-operatives will probably have similar management lines especially when the members delegate the responsibility for day to day running of the cooperative to one of themselves or to an employed manager. The manager would have to report to the board of directors or committee on a regular basis, and the board of directors would report to the proprietors, shareholders or members at the annual general meeting (see Figure 44).

As an organisation gets bigger, with a number of branches etc., difficulties can arise in that each branch or department interacts with others only at the top. At the lower levels there is little or no knowledge about what goes on in other departments, about their importance to the whole organisation or about their objectives or problems. There is a tendency to become isolated, working to different objectives and goals, so the overall objective of the organisation may be lost. It is obviously the task of the managers to sort this out, but it saves time and money if there is a continuing awareness of what other sections are aiming for. The bigger an organisation becomes the more important it is to recognise the importance of supervisors/managers talking to the workers immediately under them to clarify the goals and responsibilities of each so they know clearly what they are supposed to be doing and preferably, why. This is an obvious but often overlooked aspect of management.

There are a number of ways of getting over this problem, such as informal meetings and exchanges between those lower down the lines of responsibility, but unless they can see that these exchanges have an influence upon decisions taken higher up the line, they may feel that such meetings are pointless. This takes us back to the management style of the owner(s) and managers, for if they can retain the confidence of the employees and keep them informed, such problems need not arise.

Figure 43 The Grant family - Line responsibilityFigure 44 Line responsibility in a large fishermen's co-operative

3.4.3. Time Management

Time is a scarce resource. Management of time is both a personal responsibility for all, employers and employees, and also a corporate responsibility for the manager. Time wasting or loss of time in unnecessary activities ultimately leads to a loss in production. In the workforce this means having to pay wages for activities which do not generate revenue.

For the manager and employee, time related problems may involve too little allocation of time for purely managerial tasks, leading to poor decision making. Time management means an awareness of time wasting activities and the setting of priorities on the jobs to be done. Priority jobs should be done first or at the time of greatest personal productivity, e.g. first thing in the morning or at quiet times of the day when there is likely to be minimal disturbance. Similar setting of priorities allows the manager to organise the workforce more effectively.

Costing of time

Time is a resource which sole traders often undervalue. You can easily put a value on any employee's time because you are having to pay out directly for hours worked. Your own time is often forgotten. One way to overcome this is by effectively paying yourself a salary which can be budgeted for. This may be the sum that is required for your own domestic needs or it may be calculated from the wage that you would be paid if you were an employee of another enterprise doing the same sort of job. This sum can be paid regularly and when profits are calculated a further sum can be paid to cover your investment in the business.

Payment for managerial time must be costed in the final product price, and it is especially important in the service sector, for if it is not costed into estimates and invoices for repair jobs etc. it cannot be claimed from the customer. Usually managerial time costs are hidden in the charge rate for man hours worked by the employees.

Time controls

Time management of employees may involve a check-in/check-out system upon starting and finishing work, or it may involve each employee filling out a weekly time sheet showing the number of hours worked on each job. This should not be seen by the employee as a control on his work (although it can be) but as a very important part of his work. In the service sector where several jobs for different customers may be done in the same day, it is vital to know the hours worked so that the customer can be invoiced appropriately.

For most small businesses, however, each member of the business monitors the time inputs of others, commenting if someone is not considered to be working hard enough. It is up to the manager/committee to determine what the required time inputs should be.

3.4.4. Selecting employees

At some stage as your business grows, you will have to choose people to work with you. In some cases the choice may be obvious e.g. your son or another of your relations, and you will have to accept his character as

Figure 45 Points to bear in mind when recruiting people

Understand the nature of the job or position to be filled. You will need to work out exactly what you expect the person to do, what the duties and responsibilities will be. This helps to define the position in the enterprise and, if necessary, the job title. You also need to understand what problems and difficulties may arise and any limitations that this may put on the person chosen, e.g. if it is heavy lifting work, will they be strong enough?

Question the need for the job. As you begin to understand the nature of the job, you may find that you are questioning whether the job really needs to be done, or whether it could not be done better by someone else in the enterprise. There is no point in hiring an extra person and paying them wages, if the job can be done by rearrangement of work schedules.

What sort of person are you looking for? Understanding the nature of the job will help you to define the sort of person you require. Thus you may feel that the job is most suited to a younger person with limited experience, whom you can train, or you may want someone who can take the responsibility of supervising others or looking after important bits of machinery. In this case someone with experience, and possibly technical qualifications, will be necessary. The physical or mental requirements of the job will impose some limitations on the sort of person you need and you should keep these clearly in mind.

What sort of a job will it be seen as? The other side of the coin of choosing an employee, is his choice of job. The job should appear attractive and if some of the work is hard and antisocial, it may have to be balanced with other lighter or more interesting work or with higher wages than you might otherwise pay. In this context, other considerations might be the opportunity for advancement within the enterprise, i.e. is there a chance for promotion and higher wages with experience and service?

What sort of wages can you pay? It is always best to define a range of wages which you would be prepared to pay for a job in advance. This helps in negotiations and perhaps in setting a basis for wage increases with service. You need to judge the job both in the local context (what are others paying for similar jobs?) and in your own business context (how much can I afford?).

Terms and wages

suited to the job. However, if you do not have a particular person in mind, you will have to be able to choose the most suitable candidate for the job. To do this, you need to be clear on a number of points (see Figure 45).

You may not take very long to be clear about these points, especially if you are wanting to take on another labourer, for example. However, the greater the responsibility to be taken and the priority given to the job by you, the clearer you should be. Once you are clear, you can advertise the sort of post you have in mind and the sort of person you are looking for. Advertising may mean just talking to colleagues in the village, or it may mean placing an advertisement in a shop window or in the local newspaper; whatever is appropriate to your situation.

Being clear makes the process of selecting people for the job much easier. Both you and the candidates know what you want. For more formal jobs, e.g. managers, foremen etc., it may be advantageous to prepare a special job specification (see Figure 46) and a written letter of appointment, preferably prior to making an appointment.

Once you have a number of candidates for the job, you may draw up a short list of the most suitable ones. It is obviously easier to choose between five or six people than to choose between twenty. All the time you must compare what each candidate has to offer in terms of age, qualifications and experience with the job requirements. Ultimately, however, these are not so important as the character of the person, his ability to adapt to your situation and whether you think you will be able to work together. These factors will be the deciding ones between two equally suitable candidates.

Figure 46 Schedule of job responsibilities to be included in Job Specification

Thus the schedule of responsibilities can be incorporated into the job specification and should indicate:

- * the title of appointment
- * the person to whom responsible
- * the main duties and any special responsibilities
- * the people for whom he is responsible
- * the wages or salary or other financial benefits
- * the hours to be worked
- * any other additional information about the job

3.4.5. Terms, wages, salary negotiations, and arbitration

In small businesses the negotiation of terms, wages and salaries is normally informal and generally in line with prevailing conditions and practices in the community and, where they exist, in line with any legislation on minimum wage levels and conditions of employment.

It is also not uncommon for the principals in a newly formed small business to pay themselves salaries below the market rate in order to be competitive and reduce cash outflow until the business is financially sound and expanding. Sometimes principals in a business forego earnings in the early years of trading.

It is a good idea that the terms of employment be agreed upon before employing a person, to include procedures for salary review, promotion etc.. A number of items need to be covered, and these are shown in Figure 47.

Figure 47 Checklist for drawing up employment terms

The terms should include the following:

- * Name and position of job
- * Duties and responsibilities
- * Hours to be worked
- * Wages, overtime payments, bonuses etc.
- * Holidays
- * Sick leave
- * Dismissal and notice to quit procedures
- * Settlement of disputes

The terms help both the employer and employee to define how the employment is to be conducted. The terms lay down such things as the hours to be worked and the holidays due etc. so that both sides know what is expected. With wages it is a good idea to set up some sort of wage structure so that all those who enter employment at a certain level get paid within the same range at the beginning. Thereafter there may be annual increments to the wage to allow for length of service and experience i.e. value to the company. The wage range may allow for the differing circumstances of the employee, e.g. married/single, with/without children. Look at Example 31 which shows what a wage structure may look like, but do not worry that the rates are not at all similar to your own situation, the values used are purely for illustrative purposes.

Example 31 Example of a wage structure for a fishing enterprise

Thus a wage structure might be:

	<u>Starting wage range</u>	<u>after yr 1</u>	2	3	4
Skipper	1000-1500	1200	1350	1500	1600
Engineers	800-1200	900	1000	1100	1200
Crew	600- 900	600	750	800	900
Apprentices	200- 400	250	350	450	-

Bonuses and incentives

Any hours worked overtime are usually paid at a higher hourly rate, perhaps time and a half or double, or even treble the normal rate, if work is on a public holiday or is carried out at antisocial times of day.

Disputes and dismissals

In the fish catching industry, payments for work are often at a fairly low nominal level but with the promise of bonuses to bring them in line with the wages for comparable jobs. For example, skippers and crew might get paid a basic of one-third the minimum wage and a bonus for every ton of fish brought in. This provides an incentive for them to do well. Many skippers and crew, however, gain all of their income from a share of the catch revenue. Skippers tend to get a greater bonus than the crew.

In some cases, both skippers and crew receive their bonus in the form of fish. In the extreme they may be paid in this way and then have to sell the fish in order to convert it into the cash they need. For the developing fish business such practice is not recommended because it sets up a number of small competitors all trying to sell their fish alongside the owner of the boat; this will tend to lower the market price.

Whatever bonuses are paid on a regular basis the method of calculation should be clearly defined. This does not of course apply to occasional bonuses given from time to time to encourage the workforce when business has been good. In the fish processing and retailing sectors different circumstances call for alternative means of payment, and these are covered in Example 32.

Example 32 Payment systems in the processing and retail sector

In the processing and retailing sector, it is more usual for wages to be paid at a flat rate without productivity bonuses. There may, of course, be small bonuses, such as a fixed quantity of fish each week for the consumption of employees, but this should not be substantial. Productivity bonuses can be offered, for example when there is a large order to be processed or when the shop has sold more than a certain quantity of fish in a day. Such bonuses act as incentives to the employees and enable them to share in the success of the enterprise. What are termed "piece rates" are another possibility - with a fish filletter for example being paid so much per box of fish filleted.

Holidays and sick leave should also be clearly stated. Usually the number of days leave due can be calculated from the number of months worked. Sick leave is not included in holidays, but in order to exercise some sort of control on this, a valid excuse or doctors certificate should be produced for any sick leave continuing for more than three days.

3.4.6. Disputes and Dismissals

Disciplining and dismissal is always a difficult task for the manager and often gives rise to bad feelings, particularly if it is felt to be unfair. This can give rise to disputes which may lead to strikes. For the small company it is vital that disputes are kept to a minimum. Such companies are very vulnerable to disruption. Some form of arbitration procedure may be required and it is a great help if this is agreed beforehand. An arbitrator, such as an independent lawyer, might be called in to settle the dispute, but it is important that both sides accept his decision. In any case, you should remain aware of the various means of terminating an employee's contract and appear to be as fair as possible in bringing such termination about (see Figure 48).

Figure 48 Means of terminating an employee's contract**Dismissal procedures**

If an employee has been caught engaging in criminal activities which affect the company e.g. taking fish, or stealing money or spare parts etc., there can be no doubt that he should be dismissed without notice. However, if he is merely negligent or lazy about his duties, or is a persistent disruptive influence in the workforce, more care has to be taken. A usual practice is to give a verbal warning followed by a written warning if the employee does not alter his ways. If neither of these have any effect then the manager has no option but to give the employee notice to quit. This might be effective immediately or after one month. It is important, however, that the procedures are clearly stated at the beginning.

Redundancy

Redundancy is a more difficult form of dismissal, because the employee has not done anything wrong. If the company is going through a difficult time, it may have to reduce its work force. If it is altering its policy and areas of activity it may have no need for a particular form of expertise any longer, so those unwanted employees have to leave. Redundancy should allow one to two months notice to give the employee time to find another job and it is usually accompanied by a cash payment dependent upon the number of years worked for the company; thus an employee who has worked for 5 years might be given the equivalent of six months pay, while one who has worked for 20 years might get 2 years pay. Where the workforce is unionised, negotiation should be carried out to stem any possibility of disruption.

Benefit schemes

A form of separation that falls between dismissal and redundancy is where due to ill health, declining health and/or age, a person is not able to undertake a particular type of work. In this case it is hoped that a business is in a position to operate some type of benefit system whereby the person can be found an easier job to do within the business or the employee can tap a benefit, insurance or pension fund to compensate for loss of job and/or income. Many co-operatives now run benefit savings schemes and governments are encouraging other businesses to do the same.

To give notice

On the other hand if the employee has found a better job or wants to leave for other personal reasons, the company usually requires some notice to allow it time to find a replacement. Length of the notice can vary according to the importance of the employee and the possible difficulties in finding a replacement. Manual workers may be required only to give one week notice, while an executive would need to give one month's advance warning.

Financial management benefits a business by controlling money and reducing wastage, by providing a longer term view of financial goals and a yardstick for performance. It acts as a control on performance of the various sections, functions or cost heads within a business.

Financial management is an essential part of forward planning and benefits a business in many ways (see Figure 49). The basic information required for financial management comes from the past performance of the business. Your business is unique in the precise way it earns and spends money and whilst some estimates can be made of likely income and expenditure, the most accurate forecasts are made from past records.

Figure 49 Examples of the benefits of financial management

It enables control of a scarce resource - money - so that waste and inefficiency may be reduced. Ill-considered expenditure can be identified and eliminated for the future

It provides a longer term view of the financial goals of the enterprise, divorced from distracting day to day details of operation

It provides a yardstick against which to measure the performance of the enterprise

It can act as a means to control the performance (income versus expenditure) of individuals or groups within the enterprise who have responsibility for different aspects - or alternatively the performance of various product lines, pieces of equipment, etc.

Factors critical to the enterprise can be identified and attempts made to control or modify such factors.

The basis of financial management is the systematic recording, analysis and presentation of financial information regarding the activity of the business in the form of accounts. Accounts are self-explanatory insofar as they give an account of what has been going on. This chapter considers some of the simple accounting procedures with which the small businessman should be familiar.

The analysis of accounts and other financial information leads on to two separate exercises - costing and budgeting. Costing is the process of attributing costs to an activity or a product so that you know how much money is needed for it to be performed or produced. With this information you are able to put a more accurate price on the product; if your cost price is higher than the price the market will bear, your cost analysis may show where savings can be made to ensure that you make a profit.

Budgeting is the use of financial information to forecast the financial needs of the business, to show where money will come from and where and when it will be spent. Large items of expenditure can be budgeted for by saving up the appropriate amounts on a regular basis e.g. by putting a

proportion of your takings into the bank each week to cover anticipated expenditure. When you are budgeting for a development or expansion of your business, the past records will only be of partial use, because the conditions under which they were collected will not be representative of planned changes. For this sort of budgeting, forecasts have to be made on estimates. Your experience and knowledge of the situation will determine the accuracy of such estimates.

3.5.1. Accounting procedures

At the outset here are some examples of accounts and accounting to show how simple accounting is and the large amount of information that can be recorded in this form. First let us look at a simple account (Example 33).

Example 33 Dennis Parr: Simple Account

Dennis goes and buys some simple equipment for repair of his boat, he can make an account of his purchases, once he has made them. Thus:

Dennis's shopping list

25 g x 2 cm steel nails	0.90
100 g x 3 cm brass screws	1.45
3 x 2 m x 8 cm x 2 cm hardwood	5.50
1 pot wood glue	1.20
1 twist caulking cotton	1.20
1 sheet copper plate	3.00
1 tin anti-fouling paint	2.60
1 tin marine gloss paint	1.60

	17.45

If records such as these are kept for all expenditure and income for each day, then when added up, they can show whether or not income has exceeded expenditure for that day or week. A more representative picture can be drawn from the results of several weeks trading.

For any period, the sum of all expenditure gives the gross expenditure (costs), the sum of all receipts (revenues) gives the gross income, and gross income minus gross expenditure gives the gross profit.

For every week's trading, the gross profit is likely to be different. For a manager it would be useful to know what is causing the differences and to assess whether there is anything he can do to keep the changes going in the right direction (higher profit) and to reduce the periods that gross profit goes down. To do this it is necessary to analyse the records to determine what types of purchases or outgoings make up expenditure and what sales are responsible for income.

Accounting Procedures

34 Dennis Parr: Purchases Ledger and Sales Ledger

Using Dennis's business, on the expenditure side we might analyse items as follows (taking prices for illustrative purposes only, so you should not compare them to your own situation)

Dennis's purchases ledger

Date	Item	Amount (\$)	Wages	Share	Fishing	Repairs & Equipment	Rental & running costs
3/3	10 litres, Petrol	10.00					10.00
3/3	1 litre, oil	3.00					3.00
3/3	20 large hooks	1.20			1.20		
3/3	20 small hooks	0.80			0.80		
3/3	80m. nylon line	9.40			9.40		
5/3	2 litres undercoat paint	5.00				5.00	
5/3	1 litre anti-fouling paint	6.00				6.00	
6/3	2 litres petrol	2.00					2.00
6/3	0.5 litre linseed oil	1.50				1.50	
6/3	Miscellaneous screws	2.90					2.90
8/3	Week's wages to skipper	5.00	5.00				
8/3	Wages to crew (2)	5.00		5.00			
8/3	Share to skipper	11.00			11.00		
8/3	Share to crew (2)	10.00			10.00		
Total		72.80	10.00	21.00	11.40	15.40	15.00

On the income side, we have the following:

Dennis's sales ledger

Date	Item	Amount (\$)	Sweetfish	Dart	Crawfish
3/3	2 small sweetfish	1.80	1.80		
3/3	1 large sweetfish	3.00	3.00		
3/3	1 crawfish	4.00			4.00
4/3	6 dart	1.50		1.50	
4/3	1 dozen dart	3.00		3.00	
4/3	1 dozen dart	3.00		3.00	
5/3	6 medium sweetfish	9.00	9.00		
5/3	4 small sweetfish	4.50	4.50		
	1 dozen dart	3.00		3.00	
	1 dozen dart	3.00		3.00	
7/3	2 dozen dart	6.00		6.00	
	2 dozen dart	6.00		6.00	
	1 dozen dart	3.00		3.00	
8/3	2 medium crawfish	6.00			6.00
8/3	1 large crawfish	6.00			6.00
8/3	1 large crawfish	5.50			5.50
Total		68.30	18.30	28.50	21.50

In Example 34 it is clear that expenditure exceeded income for the period 3/3 to 8/3. On the expenditure side, it is clear that purchases of fishing equipment and repair items could be expected to cover a longer period than just the week that we are looking at, and that some of these costs should be allocated to income in future weeks. Questions that might be reasonably posed with respect to these figures are whether or not all fuel purchased was used for that week's fishing and can this level of consumption be seen as normal for such a week? Are the share splits being paid, too high and/or are the salaries too high?

On the income side, it is apparent that sales were made on five days; what happened to day 6? Dart and crawfish sales have provided the bulk of the week's income; is this normal? Are the prices charged for sweet fish sufficient to cover the cost and effort entailed in catching it? Is there any way of standardising fish prices, as seems to be the case with dart, or is it more profitable using the existing system?

If the first three columns in the purchases ledger and the sales ledger are combined in the one ledger, they form the simplest system of accounting, the cash book, as shown in Table 32.

Table 32 Dennis Parr: Cash book

<u>Date</u>	<u>Item</u>	<u>Expenditure</u>	<u>Income</u>
		\$	\$
3/3	10 litre of petrol	10.00	
	1 litre of oil	3.00	
	20 large hooks	1.20	
	20 small hooks	0.80	
	80 m. nylon line	9.40	
	2 small sweetfish		1.80
	1 large sweetfish		3.00
	1 crawfish		4.00
4/3	6 dart		1.50
	1 dozen dart		3.00
	1 dozen dart		3.00
5/3	2 litres undercoat paint	5.00	
	1 litre anti-fouling paint	6.00	
	6 medium sweetfish		9.00
	4 small sweetfish		4.50
6/3	2 litres petrol	2.00	
	0.5 litre linseed oil	1.50	
	Miscellaneous screws & washers	2.90	
7/3	1 dozen dart		3.00
	1 dozen dart		3.00
	2 dozen dart		6.00
	2 dozen dart		6.00
	1 dozen dart		3.00
8/3	2 medium crawfish		6.00
	1 large crawfish		6.00
	1 large crawfish		5.50
	Week's wages to skipper	5.00	
	Wages to crew (2)	5.00	
	Share to skipper	11.00	
	Share to crew (2)	10.00	
		-----	-----
		72.80	68.30

Accounting Procedures

As has been shown in Example 34, analysis books for expenditure and income record much more information than can be easily handled in the simple cash book and they lead the way to more complex accounting systems. It should always be remembered that all accounting systems are still based on the concept of the cash book, and only gain in complexity due to the number of cash-type books in operation at any given time.

Before going on to a slightly more complex system, it is worth reviewing progress so far. Other than for the business that is managed intuitively, by the seat of the pants, it has been shown that keeping some record of day to day events is likely to assist the business and its management in deciding upon and meeting objectives. Even for the intuitively managed business, the analysis of historical records would undoubtedly improve the business.

On the accounting side, it is useful to record, in detail, itemised expenditures and sales. This process, and the analysis of such records, can provide considerable information about the financial health of the business, but stops far short of helping managers make more than purely financial decisions - it does not help them make operational decisions. For this it is necessary to provide far more non-financial information, in many cases displayed in the same way as one would display financial information.

The recording and analysis of this type of information combined with the financial records may be called cost accounting (the detailed analysis of how much things cost) and management accounting (the detailed analysis of production and trading activities with a view to improving business performance). For more detailed coverage of all three types of accounting, it is better to seek specialist advice from an accountant, banker, development officer, business adviser or where available, a chartered accountant (financial accounting), a cost accountant or a management accountant.

Accounting procedures should not just be practised to satisfy or impress officialdom, but should be used as the foundation for the management control systems used to govern the internal operations of the enterprise. Certain types of accounts are essential management tools.

The degree of effort expended and the scope of the records maintained will depend on a number of factors, principally the scale of operations, the status of the enterprise (sole trader, company, co-operative etc.) and the requirements for complying with taxes, duties, quotas, price support systems etc.

At the bottom end of the scale there is the individual who operates a purely cash business i.e. no credit given or taken, and who does not use a bank account. He will deal mostly in cash and some of his trade will be bartered for other goods. He may provide for the replacement of his boat and tackle and for his old age by investing in something which he can quickly turn into cash, for example cattle or goats.

At the other end of the scale will be the co-operative and small limited company whose books and records will be the subject of regular inspection and audit by public officials or qualified accountants, and who will be expected to comply with state regulations regarding sales taxes, taxing employees, providing periodical statistical returns, and who will have to account to their members or shareholders for their profits and losses.

Market forces (supply and demand) will determine the price that the consumer will have to pay but the cost of production i.e. the cost of getting the fish from sea (lake or river) to table, will determine whether there is a viable fishery enterprise or not. Whether the industry is supported by grants or subsidies or whether it stands on its own feet, costing is an essential tool of the manager or adviser if maximum efficiency and/or profitability is to be achieved.

The sales/costs/profit ratios will influence the scale and scope of operations, the amount of effort (manpower) utilised and the nature/size/cost of equipment employed.

Costs fall into two categories - fixed and variable. Fixed costs are those that do not change as volume of sales or throughput fluctuate and include such items as providing capital equipment, rents and overheads relating to shore installations. Variable costs will include operating expenses of boats, purchases of fish from outside sources, selling and distribution costs.

In order to determine the amount of profit you might make, you must establish your break-even point first. This is the level of sales at which revenues and costs are exactly equal. Above that level you will be in profit. On the basis of this you will decide whether you need to increase prices, reduce fixed costs, improve efficiency, increase output etc. In fact, it will be your most important management tool. Don Marsh used this type of analysis to assess whether he should look towards expansion in output. Look at Example 35 to see the various factors he took into consideration.

For an enterprise which has certain fixed costs to meet, the greater the throughput, the less the fixed costs per unit of product. Variable costs will of course increase proportionally, according to production/sales volume. The break-even volume for any given price level can be calculated easily from the equation -- break-even price equals variable cost plus fixed costs divided by sales volume -- so that break-even sales volume equals fixed costs divided by the difference between sales price and variable cost.

Put another way, for any particular level of production and sale, there is a breakeven price - that price which exactly covers all production and sales costs. This is easily calculated by dividing total costs by total sales volume.

Example 35 Don Marsh Break-Even Analysis

Don runs a small processing business beside the main wharf in Arcady. He buys dart directly from the local full-time fishermen and then sells his product to retailers, restaurateurs and hoteliers in the vicinity of Arcady and along Turtle Beach. An astute trader, he has made good use of simple advertising techniques and after only a year and a half of trading has a steady regular clientele, most of whom collect their orders from his premises.

He originally set up in business by approaching the Business Advisor, who works for the Ministry of Trade and Industry, with his idea and together they went to the development bank to look for financial support to rent premises, order a locally designed kiln and fund some of the working

Costing

capital needed. In a year and a half, demand for his product has increased and he has almost paid back the bank loan he took out to establish the business. He now has to decide whether or not to expand, whether or not to take on additional labour and whether or not to buy a second kiln.

In order to produce 1,000 kg of smoked fish product each year, Don employs one assistant and has the following costs.

Processing costs

<u>Fixed Costs</u>	\$
Rental of site	50
Wages (including self)	500
Interest on loan for kilns & equipment	100
-----	-----
	650

Variable Costs

Purchase of fish (3000 kgs)	1,500
Firewood fuel for smoking	500
Salt	100
Packaging materials	100
Transport costs	500
-----	-----
	2,700
Total/ton of product	3,350
Cost/kg of product	3.35
Market price/kg	4.00
Profit margin/kg	0.65

The costs of producing 1,000 kgs. of smoked fish are \$650 + \$2,700, therefore the breakeven price is \$650 + \$2,700 divided by 1,000 kgs. = \$3.35/kg. Any price received above this breakeven price constitutes a profit.

If production and sales are increased by 50 per cent to 1,500 kgs. per year, the fixed costs should stay at \$650, but variable costs should increase by 50 per cent to \$4,050. At this level of production, the breakeven price is \$650 + \$4,050 divided by 1,500 kgs. = \$3.13/kg. This reduction in break-even price is because fixed assets are utilised more efficiently, as the higher the capacity utilisation, and the greater the production and sales, the lower the unit costs associated with products and sales.

In this example, at the 1000 kg output level the unit variable cost (total variable costs divided by total production/sales) is \$2.70/kg., and the unit fixed cost (total fixed costs divided by total production/sales) is \$0.65/kg. If it is assumed that to produce an extra kilogram of product requires a proportional increase in all variable costs, an increase in production from 1,000 kgs./yr to 1,100 kgs./yr would result in an overall fall in unit production costs. Unit variable costs remain the same at \$2.70/kg., but with unit fixed costs falling to \$0.59/kg., a fall in production costs of \$0.06/kg would be brought about.

At a fixed market price of \$4.00/kg., the production and sale of 1,000 kgs. of smoked fish shows a profit of \$650 for the year (unit sales price

minus unit production costs times total sales). By increasing production and sales to 1,100 kgs. in the year, profits would be increased to \$780. Can you see why? Firstly, more product (100 kg) is being sold, but secondly the profit on all product is increased as the process is more cost efficient. So although sales increase by just 10 per cent, profit increases by 20 per cent.

Assuming these cost estimates, for every increase in production and sale of 10 kgs. of smoked fish, at a sales price of \$4.00/kg., the business makes an additional \$13.00 profit. Don would be well advised to make every effort to step up production and to further investigate the financial viability of this.

For certain levels of production some of what we have termed variable costs are in fact not variable. For example, if you hire a car to transport your fish to market, the hire cost (a variable cost) will be the same whether you carry 50 kgs of fish or 100 kgs of fish. For this range of fish volume you can carry in a car, the so-called variable cost is in fact a fixed cost. Accordingly, let us rename the fixed costs as overhead costs, and the variable costs as operating costs made up of fixed operating costs and variable operating costs. This point is clarified in Example 36.

Example 36 Don Marsh: Fixed and variable operating costs

Now let us look more carefully at the so-called variable costs with reference to the processing cost figures contained in Example 35. To increase production by 10 kgs. Don has to purchase an additional 30 kgs. of fish, but he would probably manage to process the fish without having to purchase more firewood and salt. If he takes the processed fish to market in a woven basket, it is likely that he can squeeze another 10 kgs. of product into the same basket, and if he transports the basket to market at a price per basket, no additional transport charges will be made. So in fact even with variable costs, some costs are not so variable as others.

Under the existing system, Don thinks that he can produce another 100 kgs. of smoked fish without spending extra on wood, salt, packaging or transport. He would, of course, have to pay for an additional 300 kgs. of unprocessed fish. Thus for production levels from 1,000 kgs. to 1,100 kgs. of smoked fish per year, fuel, salt, packaging and transport costs are fixed operating costs. The cost of raw material is a variable operating cost.

At 1,100 kgs. production per year, unit overhead costs remain the same, i.e. \$0.59/kg. Unit variable operating costs also remain the same at \$1.50, but unit fixed operating costs are \$1.09, which is an additional saving of \$0.11/kg. in production costs. Total unit product costs are therefore \$3.18, increasing profit at a sale price of \$4.00/kg. from \$780 to \$902.

On this basis, it would appear that Don could and should use his production materials more efficiently, through better organisation and using the facilities to capacity. In his case it takes a certain more or less fixed amount of wood to fire up the kiln, regardless of how much fish is to be smoked in the kiln. Transport costs are charged per basket, regardless of whether the basket is full or only half-full. Better use of facilities indeed lead to lower unit production costs, and this may be termed "economies of scale".

Costing

If this process is continued, then, he could establish the capacity of the site that he is renting, establish whether or not a second kiln could be purchased, whether or not a second assistant could be cost-effective (benefits outweigh the costs). At this stage, the analysis becomes almost the same as preparing a feasibility study or business plan relating to longer term performance.

If we look into costs analysis in more detail, by calculating what part of production costs are attributable to various activities, purchases, etc., it is possible to get a much better impression of how the business works. If this analysis is then done on a periodic basis, say monthly, then it is possible to use this unit cost analysis to measure the performance of the business, one period to another. Take the example of Dennis Parr's fishing business as in Example 37.

Example 37

Dennis Parr: Calculation of Production Costs per Unit of Revenue

If we look at a slightly different example, for Dennis's fishing business, we have established cost heads in wages, share, fishing equipment, repairs and maintenance and fuel and running costs. It would be a relatively easy task to establish how these costs were distributed for every dollar of revenue earned on a monthly basis. The tables produced would be:

Analysis of revenues and profits

	<u>Wages</u>	<u>Share</u>	<u>Equip.</u>	<u>R&M</u>	<u>Fuel etc.</u>	<u>Total Costs</u>	<u>Total Revenue</u>	<u>Profit</u>	<u>Cum. Profit</u>
J	40	86	35	30	45	236	260	24	24
F	40	115	6	5	60	226	349	123	147
M	50	102	110	63	35	360	310	(50)	97
A	40	149	20	12	40	261	450	189	286
M	50	89	0	12	45	196	270	74	360
J	40	104	10	19	55	228	315	87	447
J	40	149	21	87	80	377	650	273	720
A	50	76	17	0	45	188	230	42	762
S	40	132	48	249	49	518	400	(118)	644
O	50	129	140	17	39	375	390	15	659
N	40	89	9	31	44	213	270	57	716
D	40	156	4	5	25	230	170	(60)	656
	520	1,376	420	530	562	3,408	4,064	656	656

Costs and profit: Per Unit Revenue (\$)

<u>Wages</u>	<u>Share</u>	<u>Equip.</u>	<u>R&M</u>	<u>Fuel etc.</u>	<u>Total Costs</u>	<u>Total Revenue</u>	<u>Profit</u>	
J	0.15	0.33	0.13	0.12	0.17	0.91	1.00	0.09
F	0.11	0.33	0.02	0.01	0.17	0.65	1.00	0.35
M	0.16	0.33	0.35	0.20	0.11	1.16	1.00	(0.16)
A	0.09	0.33	0.04	0.03	0.09	0.58	1.00	0.42
N	0.19	0.33	0.00	0.04	0.17	0.73	1.00	0.27
J	0.13	0.33	0.03	0.06	0.17	0.72	1.00	0.28
J	0.06	0.23	0.03	0.13	0.12	0.58	1.00	0.42
A	0.22	0.33	0.07	0.00	0.20	0.82	1.00	0.18
S	0.10	0.33	0.12	0.62	0.12	1.30	1.00	(0.30)
O	0.13	0.33	0.36	0.04	0.10	0.96	1.00	0.04
N	0.15	0.33	0.03	0.11	0.16	0.79	1.00	0.21
D	0.24	0.92	0.02	0.03	0.15	1.35	1.00	(0.35)
	0.13	0.34	0.10	0.13	0.14	0.84	1.00	0.16

Note: Figures in brackets are negative

From these historical tables, it is clear that January, March, September, October and December were unprofitable months due, on the costs side, to high equipment costs in March, high repair and maintenance costs in September, high equipment costs in October and high share costs in December. On assessment it appeared that, for all but December, these unusual costs could be explained by major purchases of equipment or a major overhaul of equipment. In December \$100 in bonuses was paid out.

High revenues in July and September were due to increased fishing effort to raise money for planned high equipment and repair costs in September and October. In fact in July the crew forewent part of their share payment to contribute towards the unusual expenditure.

On the whole, the cost analysis for Dennis looks fairly straightforward, although one might question the necessity to pay a wage (but rather just distribute a fixed share of revenues). The annual averages allow one to target for the coming year, and one might even wish to work out seasonal averages.

A next step from here would be to estimate/analyse costs against different fishing methods. For example, bottom fishing for sweet fish is quite different to jigging/trolling for dart, which in turn is different from diving for crawfish, or hunting them on dry reefs during the full-moon. This analysis would give a much better picture of which type of operations are most profitable, and where greater effort should be expended.

Further work could also be warranted on the number and weight of fish landed and the price per unit fish and price per unit weight that the fish are sold for.

Once again, relatively simple examples have been taken, but the approach described is also that for use in more complex situations.

Budgeting

3.5.3. Budgeting

Projecting this principle of costing forwards on the basis of estimated future production and expenses is called Budgeting. On the basis of future known or anticipated changes in the items comprising the costings, it is possible to calculate reasonably accurate budgets for future expansion, costs and profit expectations. This enables managers to make sensible plans for the future and to provide for continuity. For budgeting purposes, let us develop Dennis's fishing operation and assess his sales record and develop an opening balance for the coming year (Example 38).

Example 38 Calculating the opening balance in Dennis Parr's business

Using the data in Example 37 as a record of historical costs and revenues, and Example 34 as an indication of the purchases and sales ledgers, a budget for the coming year can be prepared.

The sales ledger can be analysed to give a record of the revenues attributable to each of the products sold by the business - sweet fish, dart and crawfish.

Analysis of previous year's sales ledger

	<u>Dart</u>		<u>Sweetfish</u>		<u>Crawfish</u>		<u>Total Revenue</u> \$
	<u>No.</u>	<u>Revenue</u> \$	<u>No.</u>	<u>Revenue</u> \$	<u>No.</u>	<u>Revenue</u> \$	
Jan	115	111	85	133	3	16	260
Feb	120	134	140	203	6	12	349
Mar	94	92	120	179	12	39	310
Apr	110	63	150	276	29	111	450
May	145	71	90	145	12	54	270
Jun	130	125	98	141	15	49	315
Jul	289	302	120	242	24	106	650
Aug	115	122	60	86	7	22	230
Sep	220	220	70	109	21	71	400
Oct	40	44	198	314	14	52	390
Nov	50	107	0	0	40	167	270
Dec	60	127	0	0	6	19	170
<hr/>							
Total	1,563	1,518	1,131	1,828	189	718	4,064
Av. \$/fish	0.97			1.62		3.80	

During the coming year Dennis plans to replace the current outboard motor with an inboard diesel engine, using a loan from the Arcadia Development Bank. The engine is likely to cost \$1,500. The bank is prepared to give a 60 per cent loan (\$900) at 15 per cent interest over 18 months, to be repaid in equal monthly instalments (\$56.16/month).

Opening Balance

From Dennis's books we can calculate his business position as of the end of the year (any suitable period would do). A statement of account at this time incorporates a summary of assets and liabilities.

For assets then, Dennis has a boat, engine and associated equipment, a small lock-up, miscellaneous fishing gear, and some oil and petrol stocks. These can be valued as follows:

Dennis's total assets

	\$
boat (8 yrs old)	450
engine (2 yrs old)	120
associated boating equipment	85
lock-up (wooden)	30
miscellaneous fishing gear	110
fuel	23

	818

The business operates on a cash basis only, so at the end of the year the business has no debtors. Dennis has, however, a total of \$545 in a savings account with the Development Bank, and an additional \$23 in cash for day to day purchases.

On the liabilities side, he still owes the local fuel depot \$35 for petrol, \$45 to the local workshop for repairs on his engine, and \$25 outstanding on a new gill net from the local store. None of these debts is more than a month old and Dennis expects to pay these off shortly. He has recently fully repaid outstanding loan payments on the outboard engine, and thus has no current commitments of this sort.

Dennis Parr's opening balance for current year

Assets	\$
Fixed assets (boat, engine, lock-up)	600
Misc. stock and equipment	218
Debtors	0
Cash in hand	23
Cash at bank	545

	1,386

Liabilities	
Creditors (monies owed by the business)	105
Loan repayments	0

	105

Opening balance (1386 - 105)	1,281
Working capital (liquid assets) (545 + 23)	568

At this point we should examine a few accountancy tools which are used to facilitate sound budgeting and financial planning. These are the concept of depreciation, the practice of making provision for the replacement of assets and provision for inflation or the upgrading of equipment.

The concept of depreciation

A major item in any budget will be the replacement of worn out assets (boat/engine/gear) and the provision made for this, known as "depreciation", will form a portion of the fixed overhead costs of the business. On the same basis that hooks and lines that are used, and used

Budgeting

up, have to be paid for, so the business is using up part of the boat, or a part of the engine, which also has to be paid for.

Therefore when calculating the current value of a fixed asset, care must be taken not to over-value. If an engine is purchased brand new for \$1,000, as soon as it is used once its value, as seen by accountants, bankers and anyone who might be interested in buying it from you, is much less than the \$1,000 that you paid. After a year of active service, the engine may not be running as well as it did when new (although if well maintained this need not be the case), but most certainly its expected active life will be at least 1 year less than that expected from a new engine. It therefore has a lower value. A person wishing to buy an engine could either buy a second-hand engine with an expected active life of 2 years for say \$500, or a new engine with an expected life of 3 years for \$1,000.

If looked after well, many engines will last well beyond their expected "economic" life, but for ease of accounting each capital item is reduced in value each year in line with the reduction in economic life. This system is formalised in accounting terms as depreciation, represented either as an even drop in the value of the asset - a fixed proportion of its cost value each month - or as a proportional drop in the value of the asset - a fixed proportion of current value. The former is known as straight line depreciation, the latter as reducing balance depreciation. The difference between these is illustrated in Figure 39.

Example 39 Dennis Parr: Depreciation of fixed assets

Let us take Dennis's engine which he purchased some 1 1/2 years ago. For an outboard engine, an expected economic life of between 1 1/2 and 3 years is to be expected, depending on how well it is maintained during that time. In Arcadia the standards of maintenance are fair, but not good. A reasonable economic life would be 2 years. Assuming that such an asset would have no financial value at the end of its economic life - by contrast a boat or building might well be expected to have a residual value or scrap value - the asset value must be depreciated to zero over two years. On a straight line basis, an allowance of \$1,000 divided by 24 months would be made - \$42/month. For a reducing balance of say fifteen per cent per month - the allowance would look like this.

Example of reducing balance depreciation

Purchase value is \$1,000.

	<u>Months</u>												
	0	1	2	3	4	5	6	7	8	9	10	11	12
Book value	1000	850	723	614	522	444	377	321	272	232	197	167	142
Depreciation	0	150	127	109	92	78	67	56	49	40	35	30	25
	<u>Months</u>												
	13	14	15	16	17	18	19	20	21	22	23	24	
Book value	121	103	87	74	63	54	46	39	33	28	24	0	
Depreciation	21	18	16	13	11	9	8	7	6	5	4	24	

This means that in the first quarter nearly forty per cent of the asset is written down (depreciated), nearly twenty five per cent in the second quarter, fifteen per cent in the third, and so on. By the end of the first year, eight-five per cent of the asset has been written down.

Depreciation allowances have no legal status except in the case where a business is to be assessed for taxation. In this case, depreciation allowances are deducted from profits to assess the taxable profit i.e. the taxing authorities are making some allowance for the need to replace such assets. However, the situation regarding taking depreciation into account for taxation purposes varies from country to country, and may not be applicable in your particular case. Check with an accountant.

Nevertheless, even for those businesses that are not assessed for tax purposes, it is still a good practice to allow for depreciation, since this concept allows one to build up reserves to cover the replacement costs of assets.

For example, we might say that the simple practice of making provision for replacement of assets can be done by establishing the cost of an asset - an engine \$ 1,000 - estimating its useful life - 2 years - and charging a hypothetical sum each year as an expense against the profit of the business - \$ 500. This practice is used in budgeting to retain an amount, equivalent to the original cost, in the business for the purpose of replacing the engine when worn out.

The effect of inflation

The above system may be perfectly adequate where the replacement engine costs the same, but inflation during the two year period may have pushed the price of the same new engine up to, for example, \$ 1,200. In this case not enough money will have been put aside to make the replacement. Similarly where a better, more expensive, engine is required, there will be a gap between the provision for replacement of the asset and the actual purchase price.

Either way, fixed costs will be increased and it is essential that this aspect be taken into consideration in order that the business can proceed smoothly. Sufficient profits should be retained in the business each year not only to meet replacements but to cover unforeseen expenditure.

Having access to the basic information of Dennis's business - Example 38 - and having assessed his current assets and liabilities, the next step is to forecast the coming year's costs and revenues using historical records, and so generate a cash flow forecast (Example 40). By estimating a closing balance for the end of the coming year and calculating the profitability of the planned business, preparation can be made for ensuring that sufficient funds are available to finance the coming year. In addition, the financial effect of any changes in the business can be foreseen by comparing the budgeted cash flow and profitability with the cash flow and profitability that would result if the change(s) were made.

Budgeting

Example 40 Dennis Parr: Projected cash flow

Using the purchases and sales records of the previous year (Example 37), we can make a reasonable estimate of the various costs and earnings for the following year. In this case we will assume that no substantial change in the business is anticipated, except for the replacement of the engine half way through the year. The projected cash flow statement for the coming year would thus look something like the table below, using the same costs and revenue figures as for the previous year. Further improvement of these figures could be gained by reassessing costs in line with planned policy and costs and revenues in line with planned productivity.

Projected cash flow for Dennis's business

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<u>Revenues</u>												
Dirt	111	134	92	63	71	125	302	122	220	44	107	127
Sweetfish	133	203	179	276	145	141	242	86	109	314	0	0
Crawfish	16	12	39	111	54	49	106	22	71	52	167	19
Sub-total	260	349	310	450	270	315	650	230	400	390	270	170
Capital costs							600					
Sub-total	0	0	0	0	0	0	600	0	0	0	0	600
<u>Fixed Costs</u>												
Bank Loan	0	0	0	0	0	0	0	56	56	56	56	280
<u>Operating costs</u>												
Wages	40	40	50	40	50	40	40	50	40	50	40	520
Shore	86	115	102	149	89	104	149	76	132	129	89	156
Equipment	35	6	110	20	0	10	21	17	48	140	9	4
R & M	30	5	63	12	12	19	87	0	249	17	31	5
Fuel	45	60	35	40	45	55	80	45	49	39	44	25
Sub-total	236	226	360	261	196	228	377	188	518	375	213	230
Balance	24	123	(50)	189	74	87	(327)	(14)	(174)	(41)	1	(116)
Opening bal.	568											
Cumulative Balance	592	715	665	854	928	1015	688	674	500	459	460	344

The opening balance is taken as the working capital, or liquid assets, available to the business at the end of the previous year. As can be seen, the monthly cash flow is substantially impacted by the purchase of an engine and the monthly loan repayments.

A ten per cent increase in operating costs would reduce available working capital to a sum incompatible with the health of the business. In this circumstance, Dennis would have to seek to increase the amount of fish sold to keep the business healthy, or perhaps extend the period of this loan to reduce monthly outlays, or ensure spending on other items (e.g. equipment or repairs and maintenance) was substantially reduced.

Partial Budgeting

Partial budgeting is a tool used to evaluate how wise a particular investment might be without going in to estimates of all the investment requirements, and the production of a full costs and returns budget. Rather, with partial budgeting, only the revenues and costs which would change as a result of the investment would be analysed. As such, it looks at any losses which might occur as a result of increased costs or decreased income, and the extent to which these are balanced by any gains - through decreased costs or increased income. If the gains are larger than the losses, the change is financially feasible.

Example 41: Example of partial budgeting

A fisherman in Arcadia sees the higher prices for sweetfish and believes it is worthwhile to consider diverting fishing effort from dart to sweetfish. He asks the Fisheries Officer for his advice and they come up with the following partial budget analysis, taking account of the move over a 3 month period.

Increased costs

Fuel	\$50
Ice	\$25
Lines	\$10

Decreased costs

Gill nets	\$40
-----------	------

Decreased income

Dart	
$500 \text{ kg} \times 0.95 = \475	
Loss effect = \$560	

Increased income

Sweetfish	
$200 \text{ kg} \times 1.75 = \350	
Gain effect = \$390	

Gain effect	\$
Loss effect	390
	560

Loss from change	170

By shifting effort between dart and sweetfish the fisherman now realises he would lose revenue. He would therefore choose to keep his current fishing operations.

3. 5.4. Financial Control

Financial control is exercised through a combination of cost accounting, statutory accounting, budgeting and forecasting. Purely financial aspects of a business, however, have no real meaning without the use of such other process information as can be easily generated e.g. levels of catches, landings, purchases, throughput, yields, sales, technology employed etc.. Together, these various measures of company activity can be used to ascertain the health of the company - historically, at present, and in the future - and, more importantly, to locate and identify problem areas that if left alone could adversely affect business.

Performance, and variations from the normal, can be measured against such targets as are set in the normal process of budgeting and forecasting business performance. Problems should be diagnosed quickly, so it is advisable to check against forecast on a monthly basis, quarterly at the outside. Any variations found must be checked, monitored and thoroughly investigated so that the cause can be rectified before losses mount and permanent damage is done to the business.

The most frequent causes of problems, indicative of the close interdependence of one aspect of the business with another, are:

- * Failure to meet sales targets
- * Unforeseen variations in cost

Failure to meet sales targets may be due to any one, or more, of a variety of factors, for example - prices too high, supplies not available, goods of inferior quality, product not what customers want, customers may have moved away and so on. Most of these can be overcome by alteration of marketing or purchasing strategy. However, both pricing and unforeseen variations in cost can only be properly examined and rectified if financial controls are operated.

Each stage in the passage of fish products from catching to consumer involves handling or processing and, therefore, attracts some cost. Each stage may involve a separate person or organisation who/which will rely upon his/its contribution to the product for his/its profit and will require to include not only his/its actual costs but some element of profit. These interrelationships can be clearly shown in the following Examples (42 - 44).

If for one reason or another a significant change in a particular cost occurs somewhere in the chain, it usually has repercussions throughout the chain. Since in general an increase in costs cannot normally be handed on immediately to the customer and/or a reduction in the costs of raw materials brought about immediately, a temporary imbalance in costs and prices occurs. Sometimes such an imbalance can become permanent.

42 Cost Mark-ups and margins in Arcadia

Value is added in the form of costs and profit at each stage and can be demonstrated. Under auction system the fisherman is a price taker, i.e. he has to accept the highest bid offered. Under any system, however, the fisherman would expect to cover the operating costs of boat and provision of infrastructure for fishing operation (say \$450) and make a reasonable profit on top (say \$150).

<u>Catching</u>	<u>\$/per ton</u>
Price to processor/distributor or landing site customer	600
<u>Processing & Distribution</u>	
Cost of raw material	600
Cost of processing, marketing & distribution	200
	<u>800</u>
Profit for Processor/Distributor (33 per cent) - mark-up	<u>266</u>
Price to retailer	1086
<u>Retailer</u>	
Cost of distributed fish	1066
Cost of operating market stall, shop, catering establishment etc.	250
	<u>1316</u>
Profit for retailer (33 per cent)-mark-up	434
<u>End Price to Consumer</u>	\$1750 (or \$1.75/kg)

Example 43 Accommodating a change in costs

Assuming that the end price to the consumer is required to be constant in order to maintain the market at a viable level, any fluctuation in costs down the line is likely to upset the budget and profit of each member of the chain.

For example, if the cost of processing, marketing and distributing unexpectedly doubles due to an unforeseen rise in fuel costs (from \$200 to \$400), the cost to the processor/distributor rises to \$1000. In order to maintain his profit margin on sales at 33 per cent, he will have to pass on these costs to the retailer.

Thus:	
Total Costs to Processor/Distributor	\$ 1000
Profit @ 33 per cent mark-up	\$ 333
Cost to Retailer	\$ 1333

External Funding

But the retailer's costs will now have risen to \$1333 + \$250 = \$1583. If he is to sell at the same price he will only make a profit of \$ 167/ton, or \$ 0.17/kg (a ten per cent margin).

To stay in business he must reduce the buying-in price of his fish and/or reduce his own operating costs and/or increase the price of his fish to his customers. Usually he will have to try for all three to avoid a reduction in his margins and therefore in his income.

This example demonstrates some of the effects of a change in costs, and a similar example could be used to show the effects of a change in prices. In addition, it demonstrates the concept of project mark-ups and margins.

The benefit of Financial Control is, therefore, in being able to identify a particular problem before it has too drastic an effect, and in being able to take action in time to remedy this.

Example 44 Accommodating the volume dimensions

These moves become clearer, however, if we add a volume dimension to the trading. For the fishing operation, let us assume that four fishermen earn their income from catching 10 tons of fish per year. Their earnings amount to \$1,500/year. The processor/distributor, on the other hand, buys his fish from several fishing organisations. His sales total 25 tons per year and he employs (including himself) six people. His profit is \$6,500. The retailer in turn buys his supplies from a variety of processors. He sells about 2 tons of product per year, making himself a profit of \$868 per year. There thus appears to be some inequity between the distribution of the total profit, and for the fishermen there is some argument for reducing the profit margin made by the processor - or setting up a processing plant to provide competition, and sell direct to the retailer.

The profit mark-up is that proportion of costs charged in addition to costs to make up the sales price. Thus a sales price of \$3.00/kg might be made up of \$2.00 costs and mark-up of fifty per cent of those costs. A clear distinction should be drawn between this and a margin - both terms are commonly used when talking about pricing and profits. A margin is that proportion of the sales price that constitutes profit. So, at a sales price of \$3.00/kg, a profit of \$1.00/kg represents a margin of one third.

3.5.5. The need for external funding and the types of such funding

The success of any venture will depend as much upon the availability of adequate resources to support the investment proposals as any other factor set out in the feasibility study. The feasibility study should initially have justified the entrepreneur's confidence in the scheme and established the practical and financial viability of the proposal(s). Unless you have capital of your own, the next step will be to raise external finance in order to proceed further.

If on the other hand you have sufficient sources of capital, the decision you have to make is whether or not you can gain as much profit in the long term as you can get in interest if the money is invested in a bank or in some other project. (This may not just be a financial decision, but may include value judgements concerning employment, social value, hidden benefits, etc..)

The feasibility report will have quantified the finance required and set out the purpose(s) for which it will be used. Finance may be required to purchase, for example:

- * premises
- * boats
- * gear or on-shore installations (processing/storage/refrigeration)
- * transport
- * some will be required for Working Capital - to finance credit sales (debtors), stock, consumable stores (chandlery, bait, tackle, fuel etc.) and, possibly, initial losses

The projected profits, in the long term, must not only provide sufficient funds after the proprietor's drawings, dividends etc., but also cover retained profits to allow for replacement of wasting assets by depreciation and allow for additional working capital that may be required to finance future expansion. If the projections show that this can be done, then you have part of the basic requirements for attracting external finance. The following example (45) demonstrates the effect of expansion on required profits.

Example 45 Working capital and expansion

If the size of operation expands fivefold in five years, the working capital requirement will also multiply thus:

<u>Current Assets</u>	<u>1985</u>	<u>1990</u>
Fixed assets (boat, engine, lock-up)	5,000	35,000
Miscellaneous stock and equipment	1,000	3,000
Debtors	3,000	7,000
Cash	1,000	5,000
	10,000	50,000
	=====	=====

Less: Current Liabilities

Creditors	3,500	17,500
Taxation	500	2,500
	4,000	20,000
	=====	=====

Working Capital Employed

The business will need to retain \$6,000 of its profits after tax each year - just to enable this expansion to \$30,000 working capital to take place. At a tax rate of 40 per cent that will require \$10,000 of pre-tax profits to be retained annually, if not the business will go deeper into debt each year and may cease, in due course, to be viable.

External Funding

Possible forms of finance

The proprietors or financial backers of a business may be active in its operation and management or they may take little or no part in it. In the context of a small business it is not unusual for finance to be provided by a "sleeping" partner or a shareholder who does not actually work in the business but participates in sharing the profits, in exchange for providing capital.

When financing a business, it is all too easy to have too high a proportion of external finance and the business can suffer from the high costs of servicing such heavy borrowing. This situation should be avoided in general.

Most lenders will want to see a fairly high degree of financial commitment from the principals. This will take the form of "fixed" capital as in the case of the share capital of a limited liability company or co-operative. In the case of a sole trader or partnership it may be "fixed" by the partnership agreement or a lender may decree that the partners' or proprietors' invested capital should not fall below a certain level. With the exception of some schemes involving state aid, a lender will normally require the principals to provide thirty to forty per cent of the total capital employed.

The purpose for which the finance is required will be the principal factor in determining the type of external finance (i.e. long, medium or short term) to be sought, and the source(s) to be approached (see Figure 50).

Figure 50 Types of finance

The category will depend upon the period of repayment thus:

Short (up to 5 years.) Loan required for the purchase of wasting assets such as equipment, engines, vehicles, refrigeration or provision of short-term working capital.

Medium (for periods of 5 to 10 years.) Loans required for the purchase of a boat, permanent fixtures and fittings, leasehold premises, or assets with a longer life expectancy.

Long (for periods of 10 to 20 years.) Loans required for the purchase of freehold premises, provision of permanent working capital, acquisition of a new business, or expansion of the present business.

Lender/borrower relations

Banks or Government Agencies will usually be able to provide the required finance in the appropriate form. It is often a good idea to obtain all the external borrowing from the same source as they will then be better able to calculate a repayment schedule or other scheme which the subject can be seen to afford. They may also offer free advice and other services.

It is essential that the lender be kept up to date with any problems that may affect repayment so that rescheduling can take place, if necessary, before matters get out of control. Terms may be negotiable or some form

of state aid may be available and you should, therefore, obtain advice on this.

If you do not have sufficient capital of your own to support the proposition or if you cannot offer adequate security it may be necessary to approach a private source to supplement your own resources. This may be family, an independent businessman or a business operating in another sector of the fishing industry - for instance, a retailer with one or more outlets may want to invest in a catching business in order to expand his scope of operations and/or guarantee a supply of fresh fish.

Since the risk the investor is taking may be substantial he will require a share of the assets and profits of the business. It is likely, particularly if he is taking little or no part in the management of the business, that he will wish to limit his risk to the amount of his capital contribution. This may, therefore, be one of the reasons for forming a limited liability company and suitable professional advice should be sought.

Similar conditions will exist where an informal association or co-operative has evolved and may wish to expand. An investor will wish to deal with a corporate body in the form of a legal entity (a partnership, company or co-operative).

The following (Figure 51) shows the different sources of finance which may be available and what conditions are attached to each sort of loan or grant.

Figure 51 Possible sources of finance

Private Finance:

- * Existing shareholders (Dividends payable on capital invested)
- * Private investors
- * Banks (Interest plus regular loan repayment)
- * Money lenders (Often short term loans, more flexible but high rates of interest)

Co-operative Finance

- * Loans from co-operative society or organisation.
- * Loans from co-operative banks. Government schemes channelled through co-operatives. (Often at commercial interest rates but may require less security)
- * Loans from members

Government finance and aid

- * Government grants (no repayment necessary, although may be limited in scope and only a proportion of total requirement)
- * Government loans (interest may be lower, and may be waived for the first year or two).
- * Loans from international agencies channelled through Government.
- * Non-government aid agencies (requirements may be different from commercial loans).

Tax Incentives and Price Subsidies may also be relevant.

3.5.6. Insurance

Insurance is a way of spreading risk by asking someone else to accept the financial costs involved in the loss of, or damage to, an asset.

For example, a business might have saved up over a period of time to buy a new boat, in the belief that the new boat would improve the profitability of the business. In turn this profit would allow the business to more than cover the cost of buying the boat, over a reasonable period of time. If, however, due to an accident the boat were destroyed, before the business had recovered the cost of the boat, the business would suffer. Firstly, it would have lost an asset, secondly be out of pocket to the extent of the residual cost of the boat, at least, and thirdly not be able to make the profits, using that boat, to fully cover the residual expenditure on the boat to replace it. This would constitute a major loss to the business.

An insurer might calculate that of a thousand such boats it would only expect one to suffer such an accident, and that five other boats would be expected to suffer major damage. The insurer would therefore expect to have to pay for one new boat a year and the repair of five boats per year, if it underwrote the risk of damage or loss to one thousand boats.

If for argument's sake, each boat costs \$ 1,000, and on average, damage to boats cost \$ 100 per boat to repair, the insurer would expect to have to pay out \$ 1,500 a year. If the insurer charged \$ 2 per boat per year insurance premium, it would receive revenues of \$ 2,000 per year enabling it to cover the cost of replacement and repair and make a profit. This in very simple terms is how an insurance company works.

Therefore, for the larger assets of a business, it makes considerable sense to insure against such accidents where insurance cover is available. In addition to loss and damage insurance, other aspects to be covered are: personal injury, medical expenses, loss of business, and many other aspects of business and personal risk. Insurance against loss of equipment is one thing that loan agencies may require, but remember that accidents to yourself or your staff can be very damaging to the business. Payment of medical expenses and compensation for loss of limbs, eyes etc. helps to soften the blow of such accidents and enables you to maintain yourself and your family until you recover. In the extreme, life assurance pays compensation to your family if you die early, so that they do not suffer financial hardship. Such insurance obviously has a cost; the cost calculated in proportion to the risk undertaken by the insurer. It is therefore up to the management of the business to assess whether it is prepared to underwrite a particular risk from within the business, or whether it would rather share part or all the risk with an insurance company.

Unfortunately, in many developing countries all kinds of insurance are not available, and insurance for small fishing businesses may be a difficult area. Insurance which is available can be arranged through an agent, by the bank, through the co-operative network or possibly through government departments, and advice can be obtained from any of these. Take great care, however, that any cover which is taken out is with a reliable insurance company.

3.5.7. Cash Control

The actual control of money taken and spent is critical to any business. If control is not good, the opportunities for theft and dishonesty are many. As a general rule money receipts and payments should not be the responsibility of only one person. This is to reduce the opportunity for dishonesty. As a matter of course, all money transactions should be subject to double checking either by a visual check (receiving cash and giving change) or through analysis of bills, invoices and receipts.

For small sums of money paid or received one person may be empowered to sign on behalf of the enterprise, but for larger sums at least two signatories should be required. Keep money in a safe place before transfer to a bank, and there should be at least two locks to the safe with each responsible person holding only one of the keys. All financial transactions should be recorded, preferably by a double entry accounting system to allow losses etc. to be traced. Record and account books should also be locked up to prevent unauthorised alterations.

3.5.8. Stock and Stores Control

Money is just one of the scarce resources upon which an enterprise depends. Spares and stock will often have to be held in readiness for a breakdown or accident, or for regular maintenance of engines etc.. If the appropriate spare is not held, it may hold up fishing or production for an unacceptably long time during which income will be lost. Stock control of such spares is necessary so that when a spare is used, a replacement is put on order.

Stock taking involves a regular, e.g. weekly, quarterly or yearly, inventory of all items held. Analysis of this shows which items are used most regularly and therefore which items should be held in larger numbers, which are less important and which seem to be unnecessary. This sort of knowledge enables storekeepers to make the most efficient use of their budget, and to provide a better service to the rest of the enterprise. Formal methods of stock control are described in specialist text books.

3.6. MARKETING

As stated in Section 2, marketing may be defined as those commercial activities associated with channeling product from the producer through to the consumer or end user. Marketing is not just selling fish, or presenting fish for sale, or even determining the price at which fish is to be sold. These may be more correctly defined as merchandising functions. It is a combination of these and many other activities that go to make up the operations of a business.

At the end of the second section of the manual we looked at the role of market research and the development of a marketing strategy. This is really the planning side of marketing. This chapter considers the day to day aspects of marketing; the processes of buying and selling, keeping control of costs and operations and ensuring that revenue generating activities meet the objectives of the enterprise. It is important to realise that marketing covers all these three interrelated areas.

Buying and selling

The following paragraphs describe the main aspects that can be considered part and parcel of marketing, and which a manager or marketing specialist would be expected to know about and to use in his day to day decision-making. They include:

- * buying and selling
- * supply characteristics
- * demand characteristics
- * internal costing
- * product cycles and stock control
- * customer relations
- * salesmanship
- * sales premises
- * sales aids
- * advertising and promotion

To distinguish between this overall concept and application of marketing and the common misuse of the term to describe selling, it is useful to think of the disposal of product as merchandising, plus related activities listed above.

Aptitude to marketing and marketing method

Some people operating small businesses have a natural talent for coming to terms with the intricacies of cash flow without ever putting pen to paper to prepare accounts or calculate trade margins. Often the same person has a flair for marketing - naturally choosing to sell products that he knows can be sold at a good profit, presenting them to the customer in the best possible light, using all his flair as a salesman, and developing and maintaining the loyalty of his clientele. Most people are less fortunate and must direct some effort towards controlling funds and planning sales.

While problems associated with maintaining cash flow and keeping sets of accounts suitable for supporting systems of management are financial management affairs, it should be recognised that marketing is closely involved with the analysis of costs and management accounts.

3.6.1. Buying and Selling

The superficial rules of buying and selling are to buy what you want or need, and to sell what you can at a profit. It sounds simple enough, but it is surprising how many businesses fail to achieve this. A variety of criteria highlight the major questions regarding buying and selling (Figure 52).

In order to use these criteria, the manager and/or his buyer/salesman must know a considerable amount about his own business, about the business of his supplier and about the "business" of his customer.

He needs to have a good idea of how much fish would be available for purchase at a given price and what room there is for negotiation, what sort of quality he might expect, and whether or not he can expect the same sort of supply the next day and the day after. Look at Figure 53 which covers the various points.

A good, practical knowledge of the supply and demand characteristics for any given product is needed, supplemented by specific knowledge on various aspects of the internal workings of the business.

Figure 52 Criteria used in buying and selling

Common criteria to be used in both buying and selling are:

- * Need - How important is your need to buy at that particular moment? How important is the need of the customer to buy? Conversely how important are your or your supplier's needs to sell?
- * Price - Does the price fit in with your own budgets? If you buy at a higher price will you be able to pass it on to your customers?
- * Quality - Is the quality good? How long will it last? Is it what the customer wants?
- * Volume - Weight or number of units. How are the fish sold? Is there a reduction in price for larger quantities?
- * Security of supply/sale - Will the supplier or buyer always do business with you?
- * Profitability - short, medium and long term. Are you looking for a quick profit or to build up the profits over some period?

3.6.2. Supply characteristics

On the supply side you need to know the seasonality of supply of each species or product being considered for purchase.

Example 46 Seasonality of supply

A purchaser should know that dart, for example, is scarce in March/May, but prolific in June/July when it comes inshore to spawn; that it is plump and oily in April/May, which is preferred by customers; that it is highly prized when sold with the roe in June/July, but that it is in poor condition immediately after spawning.

We must know the main sources of supply of each type of fish to the market, and most importantly the main sources of supply from whom we are able to purchase (Example 47).

Example 47 Sources of supply

For instance, a large concern catching 100 tons of fish per day would not be interested in selling 20 kgs of fish to a single client, but two small fishermen down on the beach would happily do so. One is, however, already committed to selling to a competing processor. The other fisherman does not fish every day, and he sells on a free market, supplying to the highest bidder on any given day. While he invariably sells most of his fish at a good price, he does not provide the security of supply that the processor requires.

The processor would have to come to some form of regular arrangement with one of the other boats, promising certain levels of demand and price, and perhaps buying from this fisherman at a relatively high price when his usual suppliers have had a bad day.

Demand characteristics

Figure 53 - Points to be considered when trading

On the selling side, he needs to know:

- * what his customer wants
- * when he wants it (variations in time of day or time of week)
- * in what form he wants it
- * at what price, quality and volume he wants it
- * where he wants it
- * how all these factors interact

In his own business he needs to know:

- * how much it will cost to handle the product
- * how this compares with the gross margin that he is likely to obtain
- * whether or not he has sufficient funds to cover the purchase and other factors associated with its passage through the business
- * whether or not there is sufficient space to store and hold the fish prior to sale
- * what loss or wastage in product might occur between purchase and sale
- * what risks are associated with not making a profit on the transaction - will it compromise other parts of the business?
- will it affect the price he wishes to sell for tomorrow?

On the buying side, he needs to know:

- * what is available
- * when it is available
- * what quality is available
- * what quantity is available
- * how much it costs
- * what room for negotiation exists
- * what terms are given

3.6.3. Demand Characteristics

On the output side you should know something about your customers and the consumer's behaviour. Assuming that the product is eventually consumed in the household, and available for purchase by the general public, you will have to know:

- * what type of fish and fish product people prefer.
- * what the spread of preferences is and when people most like eating such products.

For example, some special fish dishes are consumed only at the time of certain religious festivals; some countries have a tradition of eating fish on one day of the week rather than others; in some places fish is most often bought on pay day as a special treat. In a similar vein, different sections of the community show different preferences in the product they buy, in the money they are prepared to pay for it, and the quantity that they buy at any time. This may help us direct some types and weights of fish to specific markets.

It is also important to develop a feel for the effect of price changes on the amount of fish purchased, both per customer, and in total. If the price of one particular product was reduced by fifty per cent for instance, would people buy more of it than usual. If there were no change it might be indicative of a luxury product, or that everyone was buying enough already, i.e. the market was saturated or the product had almost no market at all. If sales did increase, then it would be important to know by how much, and thus whether or not the increase in throughput countered the fall in unit profitability.

The more information of this type that can be gathered and analysed, the better able the manager will be to match his buying policy with his sales policy. Such information can be gathered by general alertness and keen observation on the part of himself and his staff and by undertaking periodic market research.

3.6.4. Internal costing

To match the sales and purchasing policies effectively, managers must be aware of the changes that occur to the product during its passage through the business. The critical parameters are changes in weight/volume (yield), costs and time taken between entering and leaving the business.

In a processing operation, a whole fish might be bought, converted to fillet and sold. The yield of such an operation is usually in the order of one third; expressed another way, it takes three kilograms of whole fish to produce one kilogram of fillets. Without considering any handling or storage costs, the fillets must be sold for more than three times the buying-in price of the whole fish, for the same weight.

Wastage also occurs during transit through the business and this will affect the overall yield. Wastage is significant, if over a period of time it becomes obvious that,

- * a smaller weight or volume is sold than was purchased, even when selling fish in the same form as they were bought
- * not all the fish available for sale is sold; some fish is discarded
- * the fish that was bought differs in quality so that some has to be discarded and some has to be discounted as being of lower quality

Such wastage factors must be accounted for in the sales price. You should keep a regular check on wastage factors so that you can allow for them. The Example below (48) highlights the influence on costs engendered by wastage.

Example 48 Effect of product loss on costs

A processor who dries 1 ton of fresh fish per week finds that in the dry season his wastage during drying is about 5 per cent due to rats and birds etc .. In the wet season, however, wastage may be as high as 20 per cent due to insect infestation. He is prepared to write off the dry season losses, but has to account for the wet season losses by buying additional fish to produce his usual 350 kg of dried product. This might cost him an extra \$25, so he has to add an extra \$0.07 per kg of dried product to his sales price in order to cover costs.

Internal costing

Furthermore, the variable and fixed costs of running the business must be added to the sales price. Fixed costs such as depreciation, salary, wages, rates, advertising, promotion, rentals etc. must be covered by the revenues to the company. This is best done by allocating a proportion of such costs to each unit of product sold. These costs are fixed; the greater the volume of sales, the lower the cost that need be assigned to each unit of sales (see Example 49).

Example 49 Allocation of fixed costs

With fixed costs estimated as \$2,000 over the year, fixed costs for 10,000 units can be allocated \$0.20 per unit. It should be stressed, however, that the volume of sales is a projected estimate and not a fact, so that if only 8,000 units are sold, \$400 of fixed overheads will not have been covered. Alternatively if 12,000 units are sold, each unit will have contributed an extra \$0.033c to profits.

Variable costs are a little easier to cope with since they are more likely to be directly related to the production, handling and sale of a unit of product. In terms of units available for sale, the variable costs become a fixed cost per unit. Thus the proportion of wages, electricity, wear and tear of equipment, transportation, selling costs etc. that can be clearly associated with each kilogram can be charged to the product (Example 50). Care should be taken, however, to see that such fixed and variable costs are clearly separated, and that no double counting is done.

Example 50 Allocation of variable costs

Analysed over a reasonable period of time, say three months, it can be seen that fuel costs, replacement of hooks and lines, use of ice etc. are roughly in proportion to the amount of fish caught. Obviously in some weeks catches are lower than others, although fuel costs appear to stay constant, but in general it is reasonable to allocate a fixed proportion of fuel, fishing gear and ice costs to each kilogram of fish caught. A regular check of operating costs against revenues for the same period should quickly indicate whether or not the costs allocated are reasonable and also if increases or reductions in efficiency are being achieved.

A retailer finds that of the fish he buys some are damaged in transit, and some are of poor quality, which he cannot sell so that he has a wastage factor of 0.2. Thus for every kilo of product sold, 1.2 kgs has to be bought. At a buying-in price of \$0.30/kg, this can be represented as \$0.36/kg in the sale price.

His fixed costs are \$2,000. On past performance he estimates that he can sell 10,000 1 kg units, but with a 20 per cent safety margin (i.e. while the aim is to sell 10,000 units as a prudent manager he allocates costs as if only 80 per cent of the sales target were reached) a unit cost of \$0.25 is postulated.

His variable costs are calculated at a further \$0.15 per unit, so that his total estimated unit costs would be \$0.76/kg. If an average sales value of \$1/kg were achieved, this would give a gross margin of \$0.24/kg.

Allocation of cost of waste

	<u>\$/kg</u>
Buying price	0.30
Wastage factor, 0.2	0.06
Fixed overheads(at 100% sales target = 20c/kg) allow 80% sales target	0.25
Variable costs	0.15
Total costs	0.76
Actual sales price achieved	1.00
Gross margin	0.24

3.6.5. Product cycles and stock control

If purchases, sales and stocks are not matched to cope with a predetermined throughput, costs and revenues can vary far outside the normal trading limits, with potentially catastrophic outcomes. The difference between the planned throughput and actual throughput is critical to various aspects of management of the business. This is true for all sizes of business, as the simple Example (51) below illustrates.

Example 51 An example of over-buying

If a hawker buys his fish in the morning at the beach and spends the rest of the day selling the fish until it is all gone, his only costs will be associated with purchase price, labour (his labour), transport (if only wear and tear on his shoes) and repair and maintenance of his tools (a basket or similar).

But if the fish are not sold on the first day, he has to keep them safely overnight. If spoilage is to be kept to a minimum, some form of low temperature storage will have to be found - usually at some cost.

In addition, having been unable to sell the fish on the day that they were bought will mean that revenues for that day's work are unlikely to cover the purchase price of a similar quantity of fish for the next day (profit excluded).

If he is used to buying and selling similar quantities on a daily basis, then to correct the situation where his costs have gone up and his working capital has gone down, he must either borrow money at some cost (interest), buy his normal quantity of fish and work harder to sell it all, or increase his margin to re-instate his normal level of working capital.

This example shows how critical it can be if working capital is depleted over time causing cash flow problems. In a more complex enterprise, the business can fail because for a short period of time it has run down its working capital to such an extent that it cannot pay its creditors even though it may be doing very good business. This is termed over-trading.

Product cycles and stock control

Cash flow planning involves ensuring that your schedules for purchases and sales are well matched in both cash and time. If you make many purchases at one time without an immediate sale, you will have to find additional storage space for this stock build-up. This may cost money and in addition you will have tied up capital in buying it. This capital has either been borrowed (i.e. interest is payable) or alternatively you could be receiving interest on it from a bank.

High stock levels may allow advantage to be taken of seasonal shortages and higher prices for the product. In general, however, a balance has to be found between high stock levels, which tie up space and capital, and low stock levels, when the business cannot supply its customers.

If high stocks are kept, the additional costs of keeping the stocks and servicing the capital tied up in stocks must be added to the costs of the business and allocated as additional unit costs (see Example 52).

Example 52 The cost of stocks

If stocks to the value of \$10,000 are held,

- * either the money has been invested from internal funds, in which case it cannot be used elsewhere or be invested in a bank to earn interest at say 12 per cent per annum or \$100/month.
- * Or the money has been borrowed in order to build up the stocks, and interest has to be paid at say 15 per cent per annum or \$125/month.

In either case this money must be spread out over the product costs. If 1,000 units are sold each month, the additional unit cost/month would be \$0.10/unit or \$0.125/unit.

If 10,000 units are sold each month, this additional cost would be reduced to \$0.01/unit.

Another set of costs related to stocks is that of maintaining them in good condition, in an orderly fashion, and in a way that makes it relatively easy to add to and remove from stock. With spares and the like, this requires a system of storage, a means of recording what is held in store and transfers to and from store, and inspection procedures to make sure that spares are not rusting, corroding or whatever. All these things have associated costs which in turn are related to the efficiency with which the stocks are controlled, and the level of stocks held.

For chilled or frozen fish, however, there are still further costs in terms of renewing ice, additional electricity charges for holding fish longer, or in larger amounts, than is the normal practice, etc .. All these additional costs have to be added up and allocated to the cost of the relevant product.

In every case the value of stocks held at any one time must be in proportion to expected sales. Just before a season when many customers want to buy a lot of fish, it may be worth building up a larger stock than normal, in order to be able to meet the demand. The increased cost of stock investment will be covered by increased product flow and price.

3.6.6. Customer relations

Customer relations is an aspect of buying and selling which is often neglected. Customer relations goes on anyway between your business and its suppliers and its customers. Nevertheless you should be aware of such relations; it is in your interest to try to improve them. Do not, however, go overboard and try to improve customer relations by buying or selling at unprofitable levels!

Good customer relations represent a component of "goodwill", an abstract concept which encompasses all the non-financial assets of a company. Such assets help boost sales and profits to levels above those that would be obtained if "goodwill" were not present. In periods of hardship this can help sustain the business through to a recovery. An example of "goodwill" is when customers come back time after time, even when occasionally they can purchase the same product at a lower price elsewhere. "Goodwill" is where a supplier might extend unusual credit for a time, on the basis that the business normally pays up promptly.

By contrast, it is a developed talent to prevent loss of "goodwill" when the customer wants one thing and the business another. Such a situation is likely to occur when the business must tell regular fishermen that it cannot buy all their fish, or when it can only do so at a reduced price. This situation is most difficult when a supplier becomes so used to selling all his fish to the business that he expects it to buy even the largest of catches at the same price as usual. In the case of a cooperative a similar impasse might occur if its members or suppliers feel that it is their right that the society purchase their fish. The principal way of overcoming the problem is to inform the suppliers of company policy and the realities of running the business through a process of regular collaboration and meetings.

At times there will be occasion to accept more fish than the business really requires, or to pay more than it wishes for the fish, on the basis that more credibility will be lost by turning away the fish than by accepting a temporary product volume and cash imbalance.

Other examples can be cited where conflicts between the company and its clients occur. In every case, however, good managers will make considerable effort to minimise the erosion of "goodwill", and even foster and increase the "goodwill". This is a matter where managers must use their business experience to judge where to draw the line; no hard and fast rules can be given.

3.6.7. Salesmanship

Salesmanship is an ability which has to be developed and one which seems all too often to be overlooked.

Salesmanship is illustrated by the difference in sales between a stall-holder with a few fish draped over a convenient horizontal surface, and another stall-holder, using the same fish but arranged on a clean stall, perhaps decorated with some green leaves, displaying the characteristics of fresh fish. Which will the customer wish to consume? Having demonstrated a clear visual advantage the sale is then supported by the salesman himself. One salesman might be apathetic and uninterested,

Salesmanship

talking to friends and not being attentive to potential customers, while the other is alert, cleanly dressed, with a ready smile and obviously ready to serve the wishes of the customer.

In countries where price is established through a process of bargaining, the good salesman will always make a point of listing the good qualities of his fish, and will bargain politely but insistently that his fish at such and such a price is a good buy. Nevertheless as a matter of principle, the listing of the favourable qualities of product should be based on fact - they should be realistic. Lies about quality always come back to the business in the end, usually by a loss of the goodwill and the customer. Various factors can be emphasised when selling your fish: look at Figure 54 which contains some ideas..

Figure 54 Topics that can be used to sell your fish

Qualities that might be listed include:

- * **freshness** ("Caught this morning by my brother" "Look, you can see its eyes are clear, gills good and red, and the skin firm and glistening")
- * **size** ("This fish was caught on the best part of the fishing ground, where the fish are plump and sweet")
- * **caring presentation** ("we care about our customers, and only provide with the best fish, look at the way we look after our fish, surely this is better than you see on other stalls")
- * **salesman - customer relationship** ("do I not always sell you the best fish, because you are a good customer, you come back week after week, so I give you a slightly better fish and a slightly lower price)

Many books have been written on the art of salesmanship dealing with complex techniques of presenting your product and getting a customer to buy it. For most small-businesses it is not necessary to seek the information in books, but rather to consider how you like being treated when out shopping, what techniques ease you into buying something, or make you feel good about a purchase etc.. Trying to recreate these feelings for your customers will win more acclaim than a lot of fancy techniques used to attract sales.

It should always be remembered that loyal/regular customers are the foundation of the business. Relying on passing trade, or the one-off purchase is rarely sufficient to support a business. The concept of "goodwill" is an important aspect of salesmanship.

3.6.8. Sales premises

No matter how lowly your sales premises might be, care and attention should be paid to making them as attractive to the customer as location and finance will allow. If the premises look well cared for and attractive, the customer will almost always think that the fish for sale are also well cared for, even if they are of similar or lower quality than fish displayed on a nearby but less attractive stall or shop.

The larger the business, and therefore the larger the resources allocated to sales, the more the effort that should be spent on design of premises. Attention should be paid to:

- * shape
- * colour
- * decoration
- * simple but effective display facilities
- * arrangement of facilities so that salesmen, customers and product flow smoothly through the premises
- * location - try and locate your premises where customers come habitually

Care should also be taken to uphold a high standard of hygiene, to design surfaces in such a way that they can be easily and regularly cleaned, and to design processing areas and surfaces so that waste material and effluent can be disposed of simply and safely without the possibility of contaminating other fish.

3.6.9. Sales Aids

A variety of sales aids can be recommended, adding little in sales costs, but much in terms of turnover and profitability. For example, customer confidence in a business can be greatly improved by clearly displaying the name and price of fish displayed for sale. An advance on this is to sell by weight and to quote prices as so much per pound or kilogram.

Even in countries where bargaining and selling by piece are traditional, the fear of a customer that he or she cannot afford a piece of fish, or that it is difficult to judge size, or impossible to compare the value of one vendor's fish with another, can be overcome using this simple method. If a salesman is used to changing his prices according to the state of the market at different times throughout the day, he can still do so by altering the price card using a felt-tip pen or chalk.

Another aid is to provide some form of wrapping material - leaves, paper or plastic bags. This makes carrying the purchase easier, prevents the fish messing up other purchases, and vice-versa, and generally makes shopping easier. In some places simply tying a string through whole fish or pieces of fish may be sufficient.

A range of incentives to buy might also be considered, as shown below (Figure 55). Such incentives can be used as a matter of course, or periodically when extra sales are required, when sales are not as brisk as desired, or when stocks of one particular product are too high.

The use of point of sale advertising or publicity also promotes sales. This can take the form of pictures and posters, of printed sheets on how to prepare certain types of fish, or details of different recipes. Often such materials will be produced by government or by a trade association, so minimising the additional cost to the individual businesses.

While all the above aids are of particular relevance to retail outlets, the same types of aids have their equivalent in the wholesale business.

Figure 55 Price/volume incentives

Incentives may include the offer of price discounts for regularity and volume of purchase. This can take the form of:

- * a straight discount on the normal or marked price,
- * a discount if a certain quantity, value, or range of products is purchased at one time,
- * provision of extra product if a certain value or volume of goods is bought,
- * the issuing of discount coupons for the next purchase.

3.6.10. Advertising and promotion

Advertising and promotion are important aspects of salesmanship. The distinction between the two is that advertising has usually to be paid for and is a direct, guaranteed method of putting the business name or products in the public's eye. For example, buying advertising space in a newspaper, or a mention on the local radio station, or having the company's name on its wrapping paper can be considered advertising. On the other hand, having one customer say to a friend that "this business sells good fish" is promotion. Promotion has no direct costs associated with it, but is once again closely associated with "goodwill". Developing "goodwill" usually does have a cost, but indirectly in terms of added services and better presentation.

Advertising is more usually associated with the larger companies where a proportion of revenues can be easily and profitably allocated to this function. This is not, however, always the case. Shouting out one's wares in the same manner as a street hawker; ringing a bell when fish is being sold; having a sign with the business name on it over the sales area, are all forms of advertising. The power of advertising should never be underestimated, and should be used in the appropriate way. Inappropriate advertising is a waste of money; appropriate advertising can be very effective at boosting sales.

It should also be appreciated that another side to advertising and promotion is sales promotion. This is half-way between advertising and promotion in technique, but constitutes a daily part of every business. Visiting customers, meeting with officials, discussing with market staff; all have a promotional content, and all cost something, either in the way of time, effort or money. These costs should be recouped through the sale of product, and such costs must therefore be allocated to product costs.

ANNEX 1

Application To The Arcadia Development Bank For A Loan To Part-finance The Purchase Of A Third Vessel To Be Owned By The Grant Family.

1. Introduction.

The purpose of this feasibility study is to support the application of the Grant family to the Arcadia Development Bank for a loan to aid the purchase of a 28-ft. fishing vessel, associated engine and required equipment. The vessel is of a type similar to that used for demonstration purposes by the Department of Fisheries. The cost of the vessel is \$12,000, while the required 20 h.p. inboard costs \$2,500 and the necessary gear \$2,906. Requested loans are: \$9,600 over 10 years to part finance the purchase of the vessel; \$2,000 over 3 years to part finance the purchase of the engine and \$2,325 over 3 years to part finance the purchase of the equipment. Repayments on these loans over the first 3 years are calculated to be (at 10 per cent interest per annum):

Principal repayment	2,402	2,402	2,402
Interest	1,353	1,152	913
	-----	-----	-----
	3,755	3,554	3,315

2. The Arcadian Fisheries.

Figures made available by the Fisheries Department suggest that in the past year the total catch of the Arcadian fleet was some 3,000 tons of which 77 per cent was dart and 23 per cent sweetfish. On the advice of International Agencies, it is generally accepted within the Government fisheries department that local fish stocks are abundant and greater levels of fishing effort will result in higher catches which are sustainable in the long term. Indeed the fisheries department is supporting the extension of the fishing sector. The major constraints to enhanced catches are not the ability to increase effort on the stocks, but to have the available catching capacity to carry out this effort. However, the generation of increased fish supply will have an effect on the marketing side, which along with the fishing part of the business, forms the main part of the Grant family business. The effect of this vertical integration and its ability to generate business revenues will be illustrated below.

Although the sweetfish catch only varies slightly according to season, this is not true for the dart fishery where the months April to June are when the main harvests take place with the take up to four times greater than the normal month.

3. The Grant Family Business.

The Grant Family is highly respected within the local community and has worked within the fishing industry for three generations. The business is run overall by Mr Bob Grant, while Mr Henry Grant supervises the

marketing operations. Mr Frank Grant skippers one of the two vessels owned by the business. At the present time, the business can be termed a loose association of family members, however, steps are being taken to register it as a private limited company: Grant Fisheries Ltd. Mr Bob Grant is to be appointed as General Manager, with an annual salary of \$2,000. This formalisation of the company structure underlines the business' recent growth and planned expansion. The Grant Family realise business management is becoming more complex, and work is in hand to develop the required procedures for orderly management, e.g. accounting systems.

Currently, the business is involved in fish catching, with two vessels, and also fish sales with a stall in the central market allied with the more traditional outlets in the village and on the beach.

The average catch for each vessel last year is estimated to have been 11,950 kg consisting of 6,500 kg of dart and 5,450 kg of sweetfish. The disposition of the catch presently is shown in Table 1. Some 9 people are employed by the business.

Their balance sheet as at the end of December 1985 (see Table 2) shows the present worth of the company to be \$9,903. This net worth is almost entirely covered by the value of fixed assets, however with developments over the last two years on the marketing side of the business, estimated revenues to the business have shown substantial increase. The estimated Profit and Loss Account, as shown in Table 3, indicates that the operating surplus in 1985, after taking into account depreciation, is estimated to have been \$3,303. This amount seems to contradict the position indicated by the Grant family and may be explainable by an over-optimistic view of sales and prices. Points to be noted are:

- a. Turnover last year was an estimated \$17,510. The fish catch is sold in a number of ways but over the past year with the opening of a stall in the central market, there has been a change of emphasis in this sales effort. The most important outlet is the central market which accounts for about 35 per cent of the sales, followed by beach sales with 19 per cent. Assessed income from individual sales outlets is based on figures and average prices supplied by the Department of Fisheries.
- b. Operating Costs. The combined operating costs of the two vessels currently owned are \$3,376 per annum.
- c. Marketing. The total cost of the marketing operations, including transport, is \$1,060 per annum.
- d. Handling and Processing. The total cost is \$221 per year.
- e. Wages. These are paid to each member of the Grant family and the 5 crewmen (including 1 skipper) on the two vessels. The division of business income is fairly complicated at the present time but it is proposed that the system be simplified after the purchase of a new vessel. In the last year total remuneration is calculated at \$7,379, but crewmen and F. Grant have received some additional monies, assessed at \$950 total.
- f. Depreciation allowance is \$2,171, consisting of \$2,112 for fishing, \$51 shore base and \$8 marketing equipment. Depreciation is calculated over 10 years (fishing vessels), 3 years (engines) and 3 years (other items).

With the success of the current vessels and the development of a better marketing organisation, the business principals agree that the best means of development is through the purchase of a new boat.

4. The New Vessel

The new vessel is 28 ft. overall length, with a beam of 5 ft. Its purchase value is \$12,000. The vessel is powered by a 20 h.p. inboard motor. It is envisaged that it will be able to fish for 150 days each year and have the following daily catch rates using a variety of gear: dart 98 kg; sweetfish 45 kg. Annual catch will thus be in the order of 14,700 kg. of dart and 6,750 kg. of sweetfish. The new vessel will thus perform better than existing vessels in the fleet, which are assessed to average 120 fishing days each year, 7,200 kg. of dart and 3,600 kg. sweetfish. It is estimated that the annual operating costs of the new vessels will be \$3,366 consisting: fuel and oil \$945; hull repair and maintenance \$600; engine repair and maintenance \$75 ; net and line replacement \$1,356; and cost of miscellaneous equipment \$390.

5. The Effect of Purchasing The New Vessel

- a. As the new vessel will effectively double the quantity of fish the business will handle, this brings problems for the marketing operations. It is expected that only a certain proportion of the increased catch will be able to go through the company's existing distribution channels. Thus there will be a planned development of the marketing side of the business to encompass wholesale activity. The effect of this on the distribution of the fish is shown in Table 1.

Given current market values, (also shown in Table 1) it is estimated that an income of \$34,050 will be produced, on a total production of 27,700 kg. of dart and 17,700 kg. of sweetfish. As the marketing aspects of the company develop, it is expected that greater quantities will be sold at the retail level rather than wholesale, with a consequent increase in grossings. Furthermore, when the two existing vessels are replaced in future years, it is to be expected their catch rates will increase with consequently larger grossings. Two additional sales assistants will be needed, one for the central market and one to oversee the suburban market sales. Their combined salary will be \$450 per year.

- b. Because of the increased and more diverse activity, the payment structure will need to be formalised. A possible method is for the operating costs and R. Grant's salary to be deducted from the total gross from all fish sales. The sum remaining will then be divided into two parts; one part will be retained by the business to cover capital costs, depreciation and profit and the other part will be divided 80:20, the former providing wages to the crew and the latter wages to the marketing part of the business. How the wages will be apportioned between crew members is subject to agreement.
- c. Current operating costs are scheduled to be increased by the amount of the third boat.
- d. The acquisition of the third boat further strengthens the need for improved business management.

6. Financial Analysis.

With the new boat it is expected that total revenues of the company will be \$34,050. Given the expected running costs, capital costs etc. and after accounting for depreciation, first year profit is postulated to be \$6,018, with the average gross profit over the next eight years just under \$5,000. Taking into account depreciation, there will be some years when cash flow will be negative. However, these figures assume no loans are taken out for capital expenditure on new vessels, engines, etc., after Year 0, and also do not take into account improved catch levels associated with new vessels replacing the old boats nor improved marketing leading to higher revenues. Furthermore, a pessimistic assumption is that the economic life of the capital equipment will not be extended beyond the nominal period (e.g. engines 3 years). Experience has shown that this will not prove to be the case.

Table 1 Grant Businesses: Average Expected Prices, Disposition of Catch and Expected Revenues

Central Market	<u>Estimated Prices (\$)</u>			<u>Current Catch Disposition ('000 kg/%)</u>			<u>Expected Catch Disposition ('000 kg/%)</u>			<u>Expected Revenue ('000 \$)</u>
	<u>Dart</u>	<u>Sweetfish</u>	<u>Dart</u>	<u>Sweetfish</u>	<u>Dart</u>	<u>Sweetfish</u>	<u>Dart</u>	<u>Sweetfish</u>	<u>Dart</u>	
Retail	0.85	1.56	2.3 (18)	6.0 (55)	4.3 (16)	7.0 (40)	3.66	10.92		
Wholesale	0.64	1.17	-	-	3.7 (13)	1.0 (6)	2.37	1.17		
Suburban										
Retail	0.68	1.09	1.2 (9)	2.0 (18)	2.7 (10)	4.0 (23)	1.84	4.36		
Wholesale	0.51	0.82	-	-	0.5 (2)	1.0 (5)	0.26	0.82		
Beach Sales	0.42	0.93	4.0 (31)	0.5 (5)	6.0 (22)	1.5 (9)	2.52	1.40		
Village Sales	0.47	0.99	1.0 (8)	0.8 (8)	2.0 (7)	1.1 (6)	0.94	1.09		
Processed fish	0.32	0.40	3.2 (25)	0.5 (5)	7.2 (26)	1.0 (5)	2.30	0.40		
Crew Consumption	-	-	1.3 (10)	1.1 (10)	1.3 (5)	1.1 (6)	-	-		
			---	---	---	---	---	---		
	13.0	10.9			27.7	17.7	13.94	20.16		
							<u>23.9</u>	<u>45.4</u>		
									<u>34.05</u>	

Table 2 The Grant family - Balance sheet as at 31st December 1985

	\$	\$
Fixed Assets		
Vessels and Engines	9,650	
Fishing Gear	222	
Shore Facilities	45	9,923
Market Facilities	6	
Current Assets		
Working Capital		100
Current Liabilities		
Creditors		120
Net Current Assets		(-20)
Total Assets Less Current Liabilities		9,903

Table 3 The Grant family - Estimated Profit and Loss Account for Year ended 31st December 1985

	\$	\$	\$
<u>Turnover</u>			
Central Market	10,690		
Suburban Market	2,830		
Village Sales	790		
Beach Sales	2,050		
Processed Fish	1,150	17,510	
<u>Operating Costs</u>			
<u>Vessels</u>			
Oil and lubricants	76		
Petrol	1,521		
Repairs and Maintenance	860		
Nets and Lines, repairs/replacement	769		
Miscellaneous Equipment	150	3,376	
<u>Marketing</u>			
Transport	240		
New Fish Baskets	60		
Ice	540		
Stall Rentals	70		
Maintenance	150	1,060	
<u>Handling and Processing</u>			
Oil	150		
Repairs and Maintenance	15		
Fuel	32		
Salt	15		
Packaging Material	9	221	
<u>Wages</u>			
R. Grant	1,495		
F. Grant	872		
H. Grant	2,494		
Grant Senior	624		
Crews	1,894	7,379	
<u>Depreciation</u>			
Fishing	2,112		
Shore Base	51		
Marketing	8	2,171	14,207
<u>Operating Surplus</u>			3,303

Table 4 Expected cash flow after delivery of a new vessel at the end of year 0 (\$)

	Years	-3	-2	-1	0	1	2	3	4	5	6	7	8	9
CAPITAL COSTS														
Vessel 1 (A)		0	0	0	0	0	0	0	0	0	6,000	0	0	0
Engine 1 (C)		800	0	0	0	0	1,200	0	0	0	1,200	0	0	0
Vessel 2 (B)		0	0	0	0	0	0	0	0	0	0	0	0	1,200
Engine 2 (D)		0	1,500	0	0	0	0	2,000	0	0	0	2,000	0	0
Vessel 3 (E)		0	0	0	0	2,400	1,920	1,824	1,728	1,632	1,536	1,440	1,344	1,248
Engine 3 (F)		0	0	0	0	500	867	800	734	2,500	0	0	2,500	1,152
Miscellaneous (E) (F)		0	0	377	628	1,008	1,130	1,100	2,906	400	247	0	3,306	267
Sub-total		800	1,500	377	3,528	4,995	5,954	3,552	7,038	9,136	3,687	9,344	7,054	2,599
OPERATING COSTS														
Fishing (G)		3,094	3,279	3,776	3,776	7,142	7,142	7,142	7,142	7,142	7,142	7,142	7,142	7,142
Marketing (H)		250	1,000	1,060	1,060	2,495	2,495	2,495	2,495	2,495	2,495	2,495	2,495	2,495
Processing (I)		197	208	221	221	388	388	388	388	388	388	388	388	388
Sub-total		3,341	4,467	5,057	5,057	10,025	10,025	10,025	10,025	10,025	10,025	10,025	10,025	10,025
REVENUES (J)														
Central market		0	0	10,690	10,690	18,120	18,120	18,120	18,120	18,120	18,120	18,120	18,120	18,120
Suburban market		7,750	7,250	2,830	2,830	7,280	7,280	7,280	7,280	7,280	7,280	7,280	7,280	7,280
Village sales		1,690	1,780	790	790	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030
Beach sales		3,240	3,540	2,050	2,050	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920
Processed fish		950	1,530	1,150	1,150	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700
Sub-total		13,470	14,100	17,510	17,510	34,050	34,050	34,050	34,050	34,050	34,050	34,050	34,050	34,050
WAGES (K)														
Fishing		4,260	5,340	2,390	2,390	8,810	8,810	8,810	8,810	8,810	8,810	8,810	8,810	8,810
Marketing		2,744	2,504	4,989	4,989	2,202	2,202	2,202	2,202	2,202	2,202	2,202	2,202	2,202
Management		0	0	0	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Sub-total		7,004	7,844	7,379	7,379	13,012	13,012	13,012	13,012	13,012	13,012	13,012	13,012	13,012
Total costs		11,345	13,831	12,813	12,813	15,954	15,954	28,052	28,052	26,599	30,075	32,173	26,724	32,381
Total revenues		13,470	14,100	17,510	17,510	34,050	34,050	34,050	34,050	34,050	34,050	34,050	34,050	34,050
Gross Profit		2,125	269	4,697	1,546	6,018	5,099	7,451	3,975	1,877	7,326	1,669	3,959	8,414
Depreciation		2,171	2,171	2,171	2,171	5,172	5,172	5,172	5,172	5,172	5,172	5,172	5,172	5,172
Net Profit	(46)	(1,902)	2,526	(625)	(47)	846	(73)	2,279	(1,197)	(3,295)	2,154	(3,503)	(1,213)	3,242
Out. Profit	(46)	(1,946)	578			799	726	3,005	1,808	(1,487)	667	(2,836)	(4,089)	(807)

Notes To Projected Cash Flow

- (A) Vessel 1 is due for replacement in period 5 when it has reached 25 years old. No scrap value.
- (B) Vessel 2 is due for replacement in period 7 when it has reached 17 years old. No scrap value.
- (C) Engines are replaced every 3 years.
- (D) The capital cost is assumed to be a 10 per cent down payment on both engine and hull. Repayment of the hull loan would be over 10 years, for the engine loan over 3 years.
- (E) Replacement schedules vary according to type of equipment.
- (F) This figure includes repayment of loan.
- (G) Takes into account fuel, lubricants, oil, repairs and maintenance equipment.
- (H) With growth in activity, current market costs are expected to increase by \$985 per year, plus the additional costs involved in employing two market workers: one in the suburban market and one in the central market.
- (I) Current processing costs are expected to increase by \$167 per year.
- (J) The current sales pattern is expected to change according to that outlined.
- (K) The current means of allocating wages is expected to change as outlined.

ANNEX 2

Check List for Compiling Feasibility Study
for new or existing fish enterprise

(1) INTRODUCTION

Definition of main objectives.

Concept: brief details of idea/products/proposals.

Background: how concept developed i.e. own new idea, someone else's, existing business, brief history.

Status: i.e. Company, Partnership, Co-operative, sole trader, family business etc..

(2) THE PEOPLE (OR PERSON) (i.e. owner(s)/chief executive(s), management)

Personal Details: i.e. Name, age, single or married, number of children and ages, own house/rented house, place of birth or upbringing etc..

Educational Attainments: degrees, qualifications, schools attended, standard reached.

Experience: of trade/business/management and curriculum vitae.

(3) THE PRODUCT(S)/PROCESSING

Full technical details/species/sizes/description/ climatic/seasonal changes etc.

Research & Development: full details of technical research and/or development work carried out.

Processing: full details of processing carried out i.e gutting, drying, freezing, canning etc.

(4) CATCHING/SOURCE(S) OF SUPPLY ETC.

Boats and Gear: full description and inventory, sizes, crew, capacity, cost/value, useful economic life, power source/ berthing arrangements.

Alternative Sources (if not catching).

Premises: details of shop/storage/factory, offices etc., freehold/leasehold, dimensions, location, capacity/ throughput.

Staffing/Management (Catching and Processing only): Details of status i.e. skilled/semi-skilled, qualifications/ experience, numbers in each category and details of individuals (if key-men) whom subject may have in mind.

Machinery, Equipments and Refrigeration: list of major items required, approx. cost of capital expenditure, whether purchased or leased, expected economic life, capacity/ output.

Materials: details of materials required; ice, salt, packing/ canning containers etc., sources, quantities, stocking requirements, availability, price fluctuations, imports etc.

Catching/Production Plan/Programme: expected growth rate, seasonal or not, relationship of production rate to personnel level, stock/storage required etc..

(5) MARKETING

Research: details of investigations carried out, conclusions and reasons, types of products required etc.

Projections of demand/sales and basis therefore for at least two years spread i.e. seasonal demand; show in months and compare with supply.

Plan: method of selling i.e. commission agents, direct selling through wholesalers, retailers, markets, auction. Advertising and publicity required.

Personnel: details of numbers and status of employees, if any involved in Selling and Distribution.

Transportation and Distribution: method, details of vehicles required for sales personnel, distribution etc., details of storage/refrigeration requirement, depots etc.

(6) ADMINISTRATION

Personnel Requirement: number, duties.

Records: details of financial, statistical and cost accounting requirements, book-keeping and management accounts.

Premises: details of office accommodation required or existing.

Equipment: details and costings of requirements of furniture, typewriters, data processing, communications e.g. ship to store radio etc.

(7) GENERAL

Summing up and long term aspirations.

(8) COSTINGS

Quantified in relation to the foregoing, show each operation.

Sales: volume/turnover/spread, type of product, sector of market (monthly for first two years).

Catching and Processing Costs/Cost of Sales.

Operation Costs of Boats & Replacement of Gear.

Materials/Purchases of fish.

Labour.

Other Direct Expenses.

Selling Costs.

Rent of Shop/Market Stall.

Advertising & Publicity Material.

Salaries & Commissions.

Motor Expenses (all transport).
Other Distribution Costs.

Establishment Costs (Premises).

Rent.
Rates, Water & Taxes.
Heating & Lighting.
Insurance.
Repairs.
Mortgage Interest (if owned).

Administration Expenses.

Executive Salaries.
Office Wages etc.
Telephone/Radio.
Postage & Stationary.
Audit & Accountancy.
Miscellaneous.

Finance Costs.

Bank Charges.
Interest.

Reserve for Asset Replacement.

(9) ANTICIPATED/EXISTING CAPITAL EMPLOYED

Shareholders/Owners Funds etc.

Partners/Share Capital (Fixed).
Loan Capital (Shareholders/Partners).

Pre-Trading Expenditure:

- * Premises.
- * Plant & Equipment.
- * Vehicles.
- * Research & Development.
- * Materials.
- * Selling Expenses.
- * Administration Costs.
- * Other Expenditure.

External Finance.

Details of:
* Bank Loans.
* Government Loans.
* Mortgage on Premises.
* Possible shareholdings.

Grant Aid.

Details of any appropriate schemes.

(10) CONCLUSIONS & RECOMMENDATIONS

Indicate areas of difficulty, itemise problems apparent from foregoing,
report costings/figures and suggest remedies/ alternatives.

Details loans/grants/subsidies to be applied for.

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GLOSSARY OF TERMS USED

Accountancy

Accounts:	A statement of the financial position of a company.
Annual Tax Returns:	Submission of accounts in a form suitable for the assessment of tax.
Assets, Fixed:	Are tangible, relatively long lived resources, used in the production of other goods and services e.g. boat, chill room, filleting machine.
Assets, Liquid:	Assets which can be quickly converted into cash. Also known as current assets.
Audit of Accounts	The yearly checking of a company account normally and preferably undertaken by an independent, external, assessor but also by internal officers.
Bad Debts:	An amount unpaid by a debtor and which is considered lost to the company; a provision for bad debts can be made in the company accounts.
Balance Sheet:	The balance sheet is the fundamental accounting report in the sense that every accounting transaction can be recorded in terms of its effect on the balance sheet. It shows the financial status of the business at any moment in time.
Borrowing:	A term used in banking to denote the amount of money a person or enterprise needs to borrow or has already borrowed.
Breakeven Point:	The level of company activity at which total revenue is equal to total expenditure i.e. the level at which there is no profit and no loss.
Budgeting:	The use of financial information to forecast the financial needs of the business to show where money will come from and where and when it will be spent.
Cash Book:	A ledger where all financial transactions are recorded.
Cash Flow:	The cumulative flow of cash over a selected period, taking into account profit or loss during individual time units.
Cash Receipt:	A signed declaration that cash has been received in payment for goods and services.

Cost Allocation:	The process of finding the cost of goods sold, taking into account cost of raw materials, manufacturing costs, labour costs etc.
Creditor:	An individual, or company, who remains to be paid for goods or services rendered.
Debtor:	An individual, or company, who owes money for goods or services rendered.
Depreciation:	A nominal reduction in the value of a capital good over a specified length of time. In some countries this can be used to offset tax liability, but in all cases is a useful allowance for future planned capital expenditure.
Drawings:	Withdrawal of funds from a business by its owner(s); equivalent to the distribution of profits.
Fixed Costs:	Those costs that do not change according to the level of production of any enterprise.
Goodwill:	The value of intangible company assets such as for example reputation or location.
Historical Records:	Records of enterprise activities covering past performance.
Income:	The amount of money which comes into a business.
Invoice:	A statement to a customer requesting payment for goods or services provided; a letter of advice of the despatch of goods with particulars of their price or quantity.
Ledger:	A book for recording accounts - such as the cash book, the sales ledger, and the purchase ledger.
Liabilities:	The monies owed by a company.
Margin:	The percentage of cost price which is accounted for by profit.
Marked Down:	A reduction in the value of something; for example a reduction in price in order to sell something quickly, or the reduction in value of an asset in order to accommodate wear and tear.
Mark Up:	The amount added to the cost of a product to decide the sales price.
Net Revenues:	Total revenues minus direct (operating) costs.
Operating Costs:	Those direct costs incurred in undertaking the normal activities of the business, excluding those costs that do not change with the level of production.

Outgoings:	Any expenditures.
Overheads:	The costs associated with the running of a company which are fixed irrespective of the level of output.
Partial Budgeting:	A device to assess the feasibility of a project by looking at increases or decreases in the main values.
Petty Cash:	The amount of money kept readily available to cover small transactions e.g. hooks, knives.
Profit & Loss Account:	A record of the change in all assets and liabilities over a given period.
Reserves:	The amount of capital a company has available in a bank etc.
Revenue:	All product generated income to a business.
Securing a Loan:	A guarantee given to a lending agency as collateral for a loan.
Social Costs:	The indirect costs of employment e.g. holidays, sick leave. Can also mean the cost to a community or a family from the carrying out of an activity (e.g. pollution, separating families).
Social Security:	A government scheme designed to protect the welfare of the work force.
Statutory Accounting:	The level of accounting required if a company is registered under the company law of a country.
Throughput:	The amount of material passing through a business e.g. the quantity of fresh fish.
Till Receipt:	A record of a transaction - one copy for the customer, one for the enterprise.
Total Balance:	The balance of total revenues and total expenditure.
Trading Accounts:	Accounts showing the trading history of an enterprise and its level of profitability.
Transfer Price:	A price used to measure the value of products exchanged between different parts of a company.
Turnover:	The amount of business, usually in value terms, which is carried out in a given period.
Variable Costs:	A cost which varies according to the level of production.
Working Capital:	Is equal to the current assets less current liabilities.

Business

Capital Intensive:	A production process which relies more on the input of machinery and other equipment than on labour.
Cost Efficiency:	The rational financial use of resources.
Economy of Scale:	A reduction in the unit production costs caused by an increase in the level of production.
Entrepreneur:	A person who invests time and money in the development of a business or businesses.
Freehold:	A freehold property is one which can be bought in total for all time, with ownership not limited by lease.
Horizontal Integration:	Where two or more companies engaged in the same line of business (e.g. fish catching) merge together.
Household Expenditure:	The spending in total of all members of the family resident in a single house.
Inputs:	Goods and services used in production.
Inventory:	The stock or store of raw materials, components, work-in-progress or finished goods.
Labour Intensive:	A production process which relies more on the input of workers than on the input of machinery e.g. hand filleting.
Leasehold:	Tenure of a property by lease which stipulates rights, rentals and duration of such an agreement.
Post Harvest:	The activity in the fishing industry which handles the fish after capture, (e.g. processing, distribution.)
Private Sector:	That part of the national economy which is owned and managed by entrepreneurs and individuals (shareholders etc.).
Public Sector:	That part of the national economy which is owned and managed by the state.
Retail Price Index:	This is the measure of inflation in the economy, and represents the increase in Retail Price in a period compared to a given base period.
Stock Management:	The process of deciding what items to stock, what quantities of such items to stock, cost of stocks, when to order/reorder, how to distribute stocks and how to maintain the quality of stocks.

Vertical Integration:	The undertaking by a single firm of successive stages in the process of production of a particular good e.g. a firm could own a boat, a cold store, and a processing unit i.e. where suppliers or customers of one another merge.
<u>Labour Terms</u>	
Anti-Social:	Work at hours which are outside the times normally worked by the general population i.e. nightwork or any work which is undertaken at undesirable hours.
Bonus:	A payment in addition to agreed wage or salary as a result of good individual performance and/or good company performance. This can be due to improved productivity.
Dismissal:	Where an employee loses his employment due to some misdemeanour on his part.
Incentive:	The promise of additional reward should certain targets be met.
Job Description:	This details the duties expected of an individual employee.
Job Title:	The role of an employee within a company e.g. Production Supervisor.
Overtime:	Work in addition to the contracted number of hours and normally attracting a premium on top of normal hourly rates (e.g. "time and a quarter" - if a person's hourly rate is \$1.00 per hour and he works 8 hours overtime at a time and a quarter his hourly rate for those 8 hours would be \$1.25.)
Piece Rates:	While payment is dependent on the level of work done by a worker or group of workers (e.g. \$5 per box of fish filleted).
Redundancy:	Where an employee loses his employment because there is no longer work for him in the business, due to no fault of his.
Sick Leave:	The amount of time away from the job due to sickness on the part of the employee.

Technical Terms

Added Value:	The value added to raw material as a result of the production process.
Ambient:	Usually used to describe the normal air temperature.

Anti-Fouling Paint:	Aims at preventing the attachment of marine animals or plants to a vessel's hull.
Butterfly Fillets:	A pair of fillets remaining attached along the back or belly line.
By-Catch:	That part of a fisherman's catch which is additional to the species to which the main effort was directed.
Chill Chain:	The presence within the distribution system of facilities to ensure the transport of fresh fish at a consistently chill temperature i.e. minus two to plus five degrees centigrade.
Cold Smoked:	A means of preserving the product through smoking whereby the flesh is not cooked.
Cold Chain:	The presence of machinery in the distribution system which enables frozen fish to be transported and stored at acceptable temperatures i.e. between minus twenty and minus thirty degrees centigrade.
Crustacea:	Invertebrate aquatic animals with articulating external skeletons such as shrimp, lobsters, crabs.
Demersal:	Bottom dwelling fish.
Drying:	Preservation of fish by reducing the water content of the flesh by exposure to wind, the heat of the sun, artificial heat or by chemical means (salt).
Eviscerated:	To gut the fish.
Feather Lures:	Hooks baited with feathers used when trolling or jigging.
Fermenting:	Method of breaking down fish flesh using enzymes, bacteria, fungi etc., to produce a required taste and/or to extend shelf life; uncontrolled fermentation results in deterioration of the product.
FIFO: First In:First Out	A method of rotating stock, the first supplies in will be the first to be used.
Fishery Resource Management	Seeks to ensure that the harvest of fish stocks is undertaken on a rational basis.
Fish Meal:	Normally used as animal feed; it is dried fish ground to meal, commonly as an industrial process.
Gill Netting:	A net which "meshes" the fish by the dorsal fin or, more likely, by the gills.

Harbour Dues:	The fee payable for the use of harbour facilities.
Hot Smoked:	A means of preserving fish through curing in hot smoke i.e. cooking the product during smoking.
Insulated Van:	A van where the low temperature inside it is protected by measures to prevent the loss of cold air, or influx of hot air; usually using an insulating material such as polystyrene or polyurethane foam.
Liveweight Equivalent:	The amount of whole fish required to make a certain quantity of product e.g. fillets.
Molluscs:	Invertebrate aquatic animals such as mussels, sea snails, octopus, squid and cuttlefish, but no shrimp-like animals.
Pelagic:	Fish which commonly swim in mid-water or near the surface; many pelagics commonly shoal e.g. mackerel, herring, sardine.
Pickling:	The curing of fish through immersion in a preserving solution e.g. vinegar.
Plate Freezing:	The freezing of product through contact with metal plates at a low temperature, as opposed to blast freezing - use of cold air.
Price Support System:	Any system designed to prevent the price of fish at auction from going below a certain level.
Product Yield:	The proportional yield of fish fillets from a given quantity of whole fish, for example.
Salting:	The preserving of fish through the application of salt.
Saturated Salt Solution:	A solution of salt in water where no more salt will go into solution, but must remain in crystal form.
Seaman's Ticket:	In some countries a qualification of seamanship.
Shellfish:	The collective name for crustaceans and molluscs.
Shelf Life:	The length of time a food product will remain fresh enough to consume.
Transverse Sections:	A cut across the long axis of anything; a fish steak is produced in this way, while a fish fillet requires a longitudinal (lengthways) cut.

Company Terms

Annual General Meeting:	An annual meeting of shareholders to discuss the annual report, annual accounts, company business, directors etc.
Annual Report:	A yearly report on the activities of a company, which will include a summary of accounts (for presentation to shareholders)
Apex Organisation:	This is a body operating on a national or regional scale which has the objective of representing the interests of all other co-operatives by regulation through co-operative laws, training, provision of supporting administrative services and perhaps provision of some centralised facilities e.g. storage and distribution.
Board:	The managing body representing the owning interests of a company.
Chairman:	The person who directs the proceedings of the board.
Collateral:	Assets used to secure a loan.
Company Registrar:	The national agency responsible for the registration of all companies.
Company Law:	The statutory instruments governing the actions and responsibilities of companies registered with the Company Registrar.
Corporate Body:	Another term for a registered business.
Director:	An individual who sits on the board of a company.
Dividends:	Bonuses paid to company shareholders out of annual profits.
Insurance Premium:	The annual cost of taking out insurance.
Minutes:	Records of official meetings.
Parastatal:	A state owned company established by statute or by normal commercial practice.
Partner:	An individual with interests in a company established by partnership agreement.
Primary Co-operative:	This is a registered co-operative which makes products on its own behalf and is responsible for its own activities, although it may seek advice from a secondary or tertiary co-operative, or organisation, or provide goods to such organisations.

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$$\frac{192 + 12}{204}$$

Principals of a Business:	The persons with ownership of a business, such as the majority shareholders, or the nominees (e.g. managers) of the owners.
Quorum:	The minimum number of voting members needed to make binding decisions.
Retained Profit:	The level of profit retained by a company (i.e. exclusive of dividends and bonuses) which may be used for development purposes.
Secondary Co-operative:	This is a co-operative whose members are primary co-operatives; three or four primary co-operatives might associate for certain activities e.g. bulk ordering, marketing etc.
Secretary:	The person sitting on a company board responsible for administration of Board matters.
Shareholders:	A person holding shares in a company or co-operative.
Sleeping Partners:	Individuals within a business who take no active part in the business, and are usually there for financial support only.
Sole Trader:	An individual who trades on his own behalf i.e. not a company, not a partnership.
Stock-taking:	A periodic count of stock to enable re-ordering etc. and to check for pilferage.

